

S. Hawken Full-Stock Rifle

By Bob Woodfill



(Courtesy of Gordon, 2007)

Full-Stocked Hawken Rifles were more plentiful than thought.

A full-stocked rifle stamped S. Hawken St. Louis is in the Buffalo Bill Center of the West in Cody, WY. It has a 37 7/8" long barrel of .54-caliber. Features on the rifle suggest that it was made between 1849 and 1859. The rifle has the typical S. Hawken trigger guard, double-pointed lock panels and beautiful snail on a solid, patented breech. This rifle has a cast buttplate copied from an earlier style, which showed a brass weld between the crescent and extension parts of the buttplate. I believe that this rifle has been lightly sanded, and that the original stock color was darker. James Gordon (2007) has provided us with some excellent color pictures of the rifle.

assembled with most of the same parts, although the full-stocked rifle has more wood that could be broken. Many of the well-known half-stocked Hawken rifles survived in reasonably good shape because they were used by scouts and hunters in the 1850s and 1860s, after the beaver trade was over. The full-stocked rifles appealed to the fur traders, pioneers and explorers throughout the Hawken era, because of their quality, which could be pur-



*S. Hawken trigger guard and snail
(Courtesy of Gordon, 2007)*

Although full-stocked Hawken rifles occur only at about 20% or less of the Hawken rifles in collections, I suspect that more were made than survived. They provided precisely what a pioneer wanted in a rifle suitable for the western states. Just about every full-stocked Hawken rifle that I have examined was 'well-worn', and was probably used extensively by the average pioneer, hunter, prospector or wagon boss. Hansen (1979) says that in the 1850s, the full-stocked Hawken rifles sold for \$18.00 and the half-stocks for \$25.00. Certainly, the \$7.00 price differential would appeal to cost-conscious pioneers headed west. The only question to a buyer might be, "Will the full-stock be as dependable as the half-stock rifle?" The answer is yes, because they were



*Double-pointed lock panels of full-stocked rifle
(Courtesy of Gordon, 2007)*

chased at a lesser price.

Although, in all likelihood a personal preference, the old mountain man, James Clyman (Camp, 1960) and pioneer John Brown (LDS Temple Square Museum in Salt Lake City, UT) had full-stocked Hawken rifles. These early explorers may have felt more comfortable with a full-stocked rifle that resembled the older flintlock rifles of which they were used to using. I've seen the brass repair plates which were applied to the cracked wrist area on both styles of Hawken rifles. The Hawken brothers knew that the wrist area was the weakest part of the rifle, and routinely supplied a long tang bolted to the trigger bar to strengthen this area. Unfortunately, if you were trying to hit a



Toeplate and buttplate extension on original rifle
(Courtesy of Gordon, 2007)

grizzly bear over the head with the buttstock of your rifle, which was all that you had at hand, all might have failed!

I've built several full and half-stocked Hawken rifles, and yes, there is a savings of labor time while building the full-stocked rifles. First, you don't have to fit the two parts of a hooked, patented breech together. Considerable time is also saved by not having to inlay four slotted escutcheons for the two barrel keys on the forearm. On a half-stocked rifle, you would need to provide an underrib, and solder on two thimbles for the ramrod, and then, fit and attach the underrib to the underside of the barrel with screws or solder. The cost of the underrib and barrel key escutcheons would be only a few dollars in the 1850s. Therefore,



Nose cap, front thimble and front barrel key of original (Courtesy of Gordon, 2007)

the largest portion of the \$7.00 differential cost could reasonably be attributed to the labor costs to fit the hooked, patented breech, barrel key escutcheons and underrib features.

The locks on full-stocked Hawken rifles were somewhat different than the locks on half-stocked rifles. The Hawken shop used the best locks (Kentland, Meier, Goucher, Gibbons) available at the time for their rifles. They simply installed a hammer with a long throw on them, that would mate with the nipple on the patented breeches (T.K. Dawson, personal communication, 1972). The locks of the full-stocked rifles were generally a grade lesser than the half-stocked rifles, but still of high quality and reliability. A characteristic lock



Typical lock on full-stocked rifles
(Courtesy of Gordon, 2007)

with a larger lockplate, particularly around the sear spring area, commonly occurs on many full-stocked rifles. This lockplate geometry may just have been characteristic of the particular lot of locks that the Hawken shop purchased and used on their full-stocked rifles.

The trigger guards were the same quality on both styles of rifles—whether the rifle has a S. Hawken oval grip or a J&S



Tang, trigger guard and trigger guard plate
(Courtesy of Gordon, 2007)

Hawken close-to-grip. The double-set triggers were also the same on both styles, except for a few of the earliest J&S Hawken rifles which had short Kentucky-type set-triggers. Most full-stocked rifles had straight-sided finials on the end of the trigger guard bar and the toe plate making them easier to inlet, another time savings feature.

The 'majority' of both half and full-stocked Hawken rifles were stocked in straight-grained maple. Both styles of rifles first used walnut and then maple only for the rifle stocks. I believe that the earliest J&S Hawken rifles had figured walnut because the Hawken brothers were trying to make their rifles stand out in an effort to be recognized in the competitive gun market. Later, in the Hawken era, the half-stocked rifles showed more figure or fiddle-back than the full-stocked rifles, BUT in any lot of stock wood, the number of the smaller half-stocked rifle blanks numbered more than the larger full-stocked blanks, all being of the equal quality. Some half-stocked rifles, especially in the late S. Hawken and Gemmer periods, were stocked with exhibition grade, tightly fiddle-back maple, probably as custom orders, or as a bonus feature to compete with the evolving center-fire rifles such as the Sharps.

I have seen both square Tennessee-style and beaver tail-shaped cheekpieces on S. Hawken stamped full-stocked rifles. The square Tennessee-style is the most common. The paneling on



Square, Tennessee-style cheekpiece
(Courtesy of Gordon, 2007)

the Tennessee-style is generally simple or absent. The beaver tail-shaped cheekpieces are similar to those used on the half-stocked rifles.

Replica Copy

You can make a copy of the Cody full-stocked S. Hawken rifle, or a composite of a full-stocked rifles made during the 1849-59 period by the Hawken shop. Suitable parts are available from suppliers, except for one part—the solid, patented breech. For several years the Pete Allen Foundry in Minnesota has not produced any solid, patented breeches, either for plains rifles or En-



Replica copy of original

glish stalking rifles. Track of the Wolf and other parts suppliers are aware of this situation and have tried to solve the problem, but have not been successful to date.

Solid Patent Breech : I used a vintage 1 1/8" solid, patent breech, modified it to fit a 1" diameter barrel, and welded on a tang extension to match the tang on the original rifle.

Barrel : I used a Green Mountain straight 1" diameter octagonal barrel in .54-caliber. It was cut to 37 7/8" long as was the original. The finished replica rifle weighs 10.5 pounds. You could use a 15/16" diameter barrel to make a lighter rifle. Barrel makers such as Colerain, Green Mountain, Rice or others can supply you with a suitable barrel.

Lock : I used a vintage Griffin Hawken lock from the 1970s. The lockplate on this particular lock is larger in the sear spring area and more closely matches the original lock's outline. You could modify any of the modern Hawken-type locks with a new and larger lockplate and a hammer with a long throw.

Stock : I used Pecatonica's full-stock Hawken semi-inlet stock in plain maple. This semi-inlet pattern has enough extra wood to fashion a good copy of the original rifle. A 13 3/4" LOP from the center of the front trigger to the center of the buttplate, similar to the original was used. A Tennessee-style, square cheekpiece with some paneling, as seen on several S. Hawken full-stocked rifles, was fashioned from the semi-inlet.



Buttplate extends 1/8" below toeplate on original

Fittings Suitable thimble, nose cap, barrel keys, sights, trigger guards, and buttplates are available from suppliers. The toe of the buttplate extends 1/8" below the toeplate on this original rifle as on other S. Hawken full-stocked rifles.

Testing

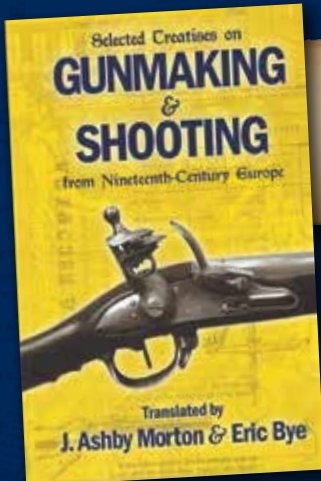
The finished copy was tested from the benchrest over a chronograph. Using a hunting load of 140 grains of GOEX 2Fg black powder, a 0.015" patch and Hornady 0.530" diameter round balls, 5-shot groups at 100 yards ran about 3-4" in diameter (a function of my aging eyes) and registered 1796 fps on the chronograph. A half-charge, plinking-load of 70 grains registered 1268 fps. In general, a sight-in trajectory putting the plinking-load at zero at 50 yards, will give a +3" high trajectory with the hunting load at 50 yards, +3" high at 100 yards and a 125 yard zero.

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Hawken Rifle Exhibit

Hawken Rifle Exhibit and Seminar
NMLRA Education Building, Friendship, IN 47021

Exhibit: June 8th and 9th, 2019 • 9:00am - 5:00pm

Seminar: June 8th • 7:00pm

- **Exhibit of Hawken rifle evolution from 1822 flintlock to 1870 Trapdoor**
- **Several original Hawken rifles are scheduled to be exhibited**
- **Exhibit of Tom Dawson Hawken and Flintlock Rifles**

Exhibitors: Bob Woodfill and Mark Brier



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