

he fact that Smith & Wesson is offering an M1911-style pistol is something of an event; for it must surely be the ultimate validation of a design that has been in continuous production by one or more companies since 1911. But it is recent history that is most remarkable, for the .45 ACP is doing nothing but growing in popularity. It is hard to say whether this is because of the cartridge or the pistols that fire it.

Everyone asks, "are the parts interchangeable?" Yes they are. Smith & Wesson's pistol is a faithful copy with just two

exceptions. What we have here is a matte stainless steel full-size M1911 pistol. It is equipped with Novak sights with the typical three-dot pattern.

Many of the small parts are recognizable aftermarket products. There is no reason for S&W to invest in all the tooling to make the various small parts such as grip safeties and triggers. There is a thriving aftermarket in such parts, and it's much more economical for S&W to buy

them or contract with an outside machine shop to make parts to its specifications.

An excellent example is the machined aluminum mainspring housing that takes the place of the plastic part used on some other M1911 pistols. But the major parts—the frame and slide—are made in Springfield, Mass., by Smith & Wesson.

The most visible variance from other M1911style pistols is the presence of an external hooktype extractor. It is 0.125" wide and 1.2" long with a pivot pin roughly in the middle. There is a small coil spring at the back to provide extractor tension.

S&W 1911

MANUFACTURER: Smith & Wesson (Dept. AR), 2100 Roosevelt Ave., Springfield, MA 01104; (800) 331-0852;

www.smith-wesson.com CALIBER: .45 ACP

ACTION TYPE: short recoil, center-fire, single-action, semi-automatic pistol

FRAME: stainless steel **RAPPFI:5"** RIFLING: six-groove,

1:16" RH twist MAGAZINE: detachable, single-column, eightround capacity

SIGHTS: Novak fixed rear, three-white dot TRIGGER: single-stage,

6 lbs., 8 ozs. pull OVERALL LENGTH: 8¾"

WIDTH: 15/16' HFIGHT: 5% WEIGHT: 38 ozs.

ACCESSORIES: extra magazine, lock, plastic case

SUGGESTED RETAIL PRICE:

The American Rifleman has used the phrase "Dope Bag" at least since 1921, when Col. Townsend Whelen first titled his column with it. Even then, it had been in use for years, referring to a sack used by target shooters to hold ammunition and accessories on the firing line. "Sight dope" also was a traditional marksman's term for sight adjustment information, while judging wind speed and direction was called "doping the wind."

WARNING: Technical data and information contained herein are intended to provide information based on the limited experience of individuals under specific conditions and circumstances. They do not detail the comprehensive training procedures, techniques and safety precautions absolutely necessary to properly carry on similar activity. Read the notice and disclaimer on the contents page. Always consult comprehensive reference manuals and bulletins for details of proper training requirements, procedures, techniques and safety precautions before attempting any similar activity.

The major parts—the frame and slide—are made by S&W in Springfield, Mass. The most visible variance from other M1911-style pistols is the presence of an external hook-type extractor.



The barrel is a standard M1911 style with a small "U"-shaped cutout on the hood to allow the shooter to view whether there is a cartridge in the chamber or not.



S&W uses a variant of the Swartz firing pin safety that has a crescent-shaped lifter located beside the hammer (1) and is held in place by the hammer pin. When the grip safety is depressed, the firing pin lock (2) is lifted.

Opinions are mixed as to whether the external design is an improvement. On one hand, it uses three parts to take the place of one. On the other, it is an advantage for the manufacturer in simpler machine operations and parts that are easier to make. From the shooter's perspective, the change is neither good nor bad, but merely a different way to do the same job.

The barrel is a standard style with a small "U"-shaped cut on the hood to allow the condition of the chamber to be seen. The stainless steel barrel has a slightly oversize area near the muzzle to promote a better barrel/bushing fit. The fit of the bushing to the slide does not necessitate a wrench for turning, but is not overly loose, either. There is light contact between the bottom barrel lugs and the slide stop pin. That is desirable as an aid to accuracy. There are no visible differences in the frame, which has features comparable to similar models from other makers.

Detail stripping reveals a trigger and safety mechanism that are standard M1911 with the exception of a firing pin safety that requires some explanation. In the late 1930s, some Colt pistols were equipped with a Swartz firing pin

SHOOTING RESULTS					
.45 ACP Cartridge	Vel. @ 15' (f.p.s.)	Energy (ftlbs.)	Smallest	Froup Size Largest	
Fed. Gold Medal No. GN 185-gr. SWC	145B799 Avg. 15 Sd	262	1.03	1.48	1.27
Speer Gold Dot No. 239 185-gr. JHP	641005 Avg. 14 Sd	415	1.36	1.97	1.63
Winchester S45 230-gr. SXT	835 Avg. 14 Sd	356	1.44	2.75	1.87
Average Extreme Sprec	ad:				1.59

Measured average velocity for 10 rounds from a 5" barrel. Range temperature: 68° F. Humidity: 37%. Accuracy for five consecutive, five-shot groups at 25 yds. from a Ransom Rest. Abbreviations: JHP (jack-eted hollow-point), Sd (standard deviation), SWC (semi-wadcutter), SXT (Supreme Expansion Technology).





Smith & Wesson uses several recognizable aftermarket parts in its 1911 pistol. An example of that is the machined aluminum mainspring housing (r.), which is used instead of an equivalent plastic part seen on many other pistols. The stainless steel barrel has a slightly oversize area near the muzzle to promote a better barrel to bushing fit (l.). The fit of the bushing to the slide does not necessitate a wrench for turning, but is not overly loose, either.

safety with a simple locking mechanism in the slide that prevented the firing pin from going forward unless it was released by pressure on a button. The detent was released by a simple plunger that was lifted when the grip safety was depressed. S&W's is a variation that uses a crescent-shaped lifter, located beside the hammer, and held in place by the hammer pin. When the grip safety is depressed, the firing pin lock is lifted. There is no mechanical connection between the lifter and the grip safety or any part of the trigger mechanism. This type of firing pin safety has no effect on trigger pull.

Shooting the S&W 1911 was uncomplicated by stoppages of any kind. The

total round count was well over 500. Accuracy results are shown in the accompanying table and are very good for a production pistol. They would have been even better were it not for a tendency of the gun to throw a single flyer that often increased group size by as much as an inch. It was a totally random event and not the sometimes common first-shot flyer.

We cannot say that the S&W 1911 breaks new ground, but there could be no better tribute to the worth of Mr. Browning's pistol than, after 92 years, a major manufacturer known best for revolvers gearing up to make it. The gun we tested is a very early production gun, and we hope S&W continues the quality of this example.



to include single-shot, boltaction, lever-action and semi-automatic rifles, accuracy.

introduced the .17 HMR cartridge to the public in early 2002, it triggered a level of demand no one could have expected. The initial ammunition production run was for a then-optimistic 5 million cartridges. Hornady sold all of those cartridges and took orders for still more at the first wholesalers show months before anyone had fired even a single round, much less promoted it.

hen Hornady

Now, little more than a year later, an entire facet of firearm manufacture has grown around the deceptively pipsqueak cartridge

single-shot and bolt-action pistols, revolvers, replacement barrels, cleaning tools and new ammunition.

One of the new single-shot .17 HMR rifles is from New England Firearms (NEF)—a logical move considering its parent company, Marlin Firearms, made the very first rifles available in the new chambering. The NEF Sportster, however, puts the performance of the .17 HMR cartridge in the hands of shooters for less than \$200, and does so in a rifle that is proven

for durability, reliability and, often, head-turning

the very first rifles available in the new chambering.

Introduction of a New England Firearms Sportster in .17 HMR was a logical move considering NEF's parent company, Marlin, made

> Functionally and cosmetically there are no surprises with the .17 HMR Sportster. Its matte-blue break-open action retains the same side-lever barrel release, exposed hammer with removable side extension and transfer bar safety mechanism as other NEF single-shot arms.

> The 22" matte-blued heavy varmint barrel is truly massive relative to the bore size and comes with a recessed target crown to protect the origin of the rifling. It's also fitted with a rail for mounting a

NEF SPORTSTER

MANUFACTURER: H&R 1871, LLC (Dept. AR), 60 Industrial Rowe, Gardner, MA 01440; (978) 632-9393; www.hr1871.com

CALIBER: .17 HMR ACTION TYPE: break-open, single-shot, rimfire rifle **RECEIVER:** blued steel

BARREL: blued, 22" heavy contour

RIFLING: conventional, 1:9" RH twist

SIGHTS: none; integral Weaver-style rail

TRIGGER: single-stage, nonadjustable; 2 lbs., 6 ozs. pull STOCK: length of pull, 14%";

drop at heel, 1½"; drop at comb. 1%'

OVERALL LENGTH: 381/4" WFIGHT: 7 lbs ACCESSORIES: gun lock SUGGESTED RETAIL PRICE:

scope using Weaver-type rings as there are no iron sights. Despite the barrel's mass, the rifle still balances on the bottom of the receiver when it has a scope mounted on it. That balance point makes the .17 HMR Sportster convenient to carry. Even so, the gun has enough heft that it will probably see more use from a stationary vantage point, such as when shooting ground squirrels, than from being carried afield while ambling around hunting gray squirrels.

Aiding accurate shooting is a Monte Carlo comb on the black, high-density

polymer stock that helps position the shooter's eye directly in line with the scope. The stock is fitted with a 1"- thick ventilated, rubber recoil pad, but considering the complete lack of felt recoil from the .17 HMR, the pad contributes little more than additional length of pull. Also helpful to accurate shooting is the crisp, single-action trigger that on our sample Sportster broke at a clean 2 lbs., 6 ozs. with virtually no take-up, though there was considerable overtravel.

We fired the NEF .17 HMR Sportster for accuracy at 50 yds. with the results

SHOOTING RESULTS					
.17 HMR Cartridge	Vel. @ 15' (f.p.s.)	Energy (ftlbs.)	G Smallest		In Inches Average
Hornady No. 83170 17-gr. V-Max	2615 Avg. 18 Sd	258	0.48	0.81	0.65
Remington 17-gr. V-Max	2597 Avg. 20 Sd	255	0.62	0.96	0.77
Average Extreme Sp	read:				0.71

Measured average velocity for 10 rounds from a 22" barrel. Range temperature: 86° F. Humidity: 68%. Accuracy for five consecutive, five-shot groups at 50 yds. from a sandbag. Abbreviations: Sd (standard deviation).

shown in the accompanying table. There were no malfunctions of any kind. We found ejection of fired cases energetic to say the least and the hammer extension an absolute necessity when using a scope with an ocular bell of any size.

The accuracy and reli-

ability of the NEF .17 HMR
Sportster complements
Marlin's existing line of
.17 HMR-cal. repeaters.
Shooters on a tight budget will appreciate being
able to discover the performance of the .17 HMR
cartridge while at the same
time appreciating the value
an NEF rifle represents.



Aiding accurate shooting is a Monte Carlo comb on the black, high-density polymer stock that helps position the shooter's eye directly in line with the scope.



Ejection of fired cases was energetic to say the least. We experienced no malfunctions during testing of the NEF Sportster. The rifle comes with a Weaver-style rail and no metallic sights.



Functionally and cosmetically there are no surprises with the .17 HMR Sportster. Its matte-blue break-open action retains the familiar side-lever barrel release and exposed hammer.



The 22" matte-blue heavy varmint barrel is truly massive relative to the bore size and has a recessed target crown to protect the origin of the rifling.



iathlon is a popular sport in Russia for obvious reasons. As biathlon places a premium on total elapsed time, Izhmash's Biathlon match rifle is built with an ultrafast, straight-pull action to reduce shooting time. Building on the success of this rifle in competition, Izhmash developed a "Basic" sporting rifle using the same action. We recently received an example for test and evaluation.

Despite the name, the Biathlon Basic is really a straight-pull sporting carbine suitable for plinking, informal target shooting, small game hunting and training. It has a mattefinished, hardwood, sporter stock with Monte Carlo cheek rest on the left side of the buttstock. A brown composite buttplate and pistol grip cap accent the blond wood stock. The fore-end is fluted for approximately 81/2 and both sides of the stock's pistol grip have 13 line-per-inch cut checkering in a double-bordered, flatdiamond design.

No metal sights are provided on the Basic. Rather, the receiver has a blued steel Weaver rail installed on the top for mounting an optical sight. As the bolt handle does not rotate, clearance for the ocular bell of a scope is no problem.

Izhmash .22 rimfire barrels are hammer-forged to a net outside diameter of 0.72" using carbon steel. In keeping with recent trends, the sporter weight

barrel of the Basic is 191/2" in length with a deeply recessed target crown. The spiral hammer forging marks on the outer surface of the barrel create a favorable impressiononce you know what they mean.

Reflecting its competition heritage, the singlestage trigger had a crisply consistent 21/4lb. let-off with approximately 1/8" of take-up. The light let-off weight greatly assisted accuracy. A two-position safety lever in the front of

IZHMASH BIATHLON

MANUFACTURER: Concern Izhmash OJSC, 3 Proezd Deryabina Str., Izhevsk, Russia 426063

IMPORTER: European American Armory Corp. (Dept. AR), P.O. Box 1299, Sharpes, FL 32959; (321) 639-4842; www.eaacorp.com

CALIBER: .22 Long Rifle ACTION TYPE: straight-pull, repeating, rimfire rifle **RECEIVER:** blued carbon steel

BARREL: hammer forged, blued, carbon steel, 19½" length

RIFLING: conventional, sixgroove, 1:16" RH twist

MAGAZINE: detachable, five-round, single-column,

SIGHTS: none, receiver equipped with Weaver rail

TRIGGER: single-stage, 2 lbs., 4 ozs. pull

STOCK: matte-finished hardwood; length of pull, 13%"; drop at heel, 2½"; drop at comb. 1%

OVERALL LENGTH: 39½" WEIGHT: 6 lbs., 8 ozs. ACCESSORIES: extra magazine SUGGESTED RETAIL PRICE: \$339



The Basic's action has two jointed arms with three pivot points—one on the rear of the bolt, one on the rear receiver bridge and one linking the two arms together (arrows above). Here, the action is unlocked and the arms are pivoted.



Pressing the operating handle forward advances the bolt, stripping a cartridge from the magazine and chambering it. As the bolt travels forward, the center pivot moves inward, causing the arms and pivots to line up and lock the bolt.

EAA's new Biathlon Basic is a straightpull sporting carbine suitable for plinking, informal target shooting, small game hunting and training. The Basic is made by Izhmash in Russia.

the trigger guard can be operated easily by the trigger finger.

The Basic feeds from detachable, five-round, single-column magazines inserted in the bottom of the action. Each Basic is supplied with two of the black polymer magazines.

Successful straight-pull rifle actions are rare. Rarer still are successful, straight-pull rimfire rifle actions. Izhmash selected this type of operation for biathlon use due to the smooth, fast ergonomics requiring a reduced amount of manipulation by the shooter. This saves precious time for the biathlon competitor and results in smooth, fast operation for a quick second

shot for hunting or plinking.

The Biathlon action operates by means of two jointed arms having three pivot points—one on the rear of the bolt, one on the back of the receiver and one linking the two approximately equallength arms together. When the large, vertical operating handle is pulled rearward, the center pivot moves outward unlocking the bolt. Pulling the operating handle farther back causes the front pivot to pull the bolt rearward, extracting and ejecting the spent cartridge case and cocking the striker.

At the end of bolt travel, the Biathalon Basic's two arms form a triangle. When

SHOOTING RESULTS							
	.22 Long Rifle Cartridge	Vel @ 15' (f.p.s.)	Energy (ftlbs.)	G Smallest	roup Size I Largest	n Inches Average	
	Federal 712 HV 38 gr. HP	1272 Avg. 23 Sd	137	0.314	0.72	0.53	
	Remington 1722 UHV 33 gr. TC-HP	1492 Avg. 29 Sd	163	0.72	1.07	0.85	
	CCI 0030 Mini Mag HV 40 gr. solid	1278 Avg. 15 Sd	145	0.83	1.48	1.21	
	Average Extreme Spread:					0.87	

Measured average velocity for 20 rounds from a 19½" barrel. Range temperature: 56° F. Humidity: 61%. Accuracy for five consecutive, five-shot groups at 50 yds. from a sandbag. Abbreviations: Sd (standard deviation), HP (hollow-point), HV (high-velocity), UHV (ultra high velocity), TC-HP (truncated cone-hollow-point).

the operating handle is pressed forward, the bolt advances, stripping a cartridge from the magazine and chambering it. The center pivot then moves inward, positioning both arms and all three pivots in line with and behind the bolt for locking.

Operation proved very fast as the right hand can cycle the bolt with a short wave of the palm and need not rotate the bolt handle to cycle the action. Bolt glide was notably smooth with no grittiness or hard spots to interrupt travel. Primary extraction and chambering effort felt strong and positive, eliminating worries about hard feeding or sticky extraction in dirty chambers.

The finish on the sample Basic's metal parts is serviceable. The rifle's blue/black finish on the barrel did not match the black, paint-like finish on the receiver. That said, both finishes seemed durable, and the matte surfaces did not reflect light.

In classic Russian gunmaking tradition, the Biathalon Basic exhibited excellent workmanship on critical parts and benign neglect on non-critical parts. For example, the important pivots, toggle arms and bolt are carefully finished while the polish on the non-critical outer receiver surfaces was indifferent.

Izhmash's new Biathalon Basic is a sporting, .22 rimfire carbine with an innovative, straight-pull action and a high degree of technical sophistication for a rifle in this price range. Although the finish leaves much to be desired, the ultra-smooth operation, fast handling and outstanding accuracy make the Basic a good value.



In keeping with recent thinking on rimfire accuracy, the 0.72" diameter barrel of the Basic is just 19½" long with a deeply recessed crown.



Barrels for the Biathlon Basic are hammerforged from carbon steel. The spiral hammer forging marks on the outer surface create a favorable impression—once you know what they represent.



To enhance accuracy, the Biathlon Basic action is bedded under both the receiver ring and the action's rear.



The sample rifle's trigger broke at 2½ lbs., which contributed to the rifle's accuracy. The safety is actually in the front of the trigger guard, much like an M1 Garand.



ock River Arms (RRA) is perhaps best known for M1911 semi-automatic pistols and AR-15-style rifles built for competition. Lately the company has been branching out into other special purpose semi-automatic firearms for law enforcement, hunting and recreational shooting. Chief among its new semiautomatic rifles is the Rock River Arms Varmint in .223 Rem. Although Rock River offers its Varmint rifle in barrel lengths as short as 16", we requested a rifle with its longest available barrel, 24", for testing.

The shooter will find the safety catch, bolt stop release button and magazine button in their usual locations on the lower receiver. The upper receiver retains the forward assist and an A2-style shell deflector behind the ejection port to protect southpaw shooters from hot flying brass.



The Rock River Arms Varmint's A2-style buttstock has trapdoor access to a storage compartment that could be used to add weight and change the gun's center of balance. A two-stage match trigger (r.) breaks cleanly to aid accuracy.

Some flattop receivers can be too low for mounting the powerful, but bulky, scopes popular with varmint hunters. Rock River addresses this vexing problem by replacing the carrying handle with a skeletonized raised bridge for the upper receiver it has dubbed EOP, which stands for "extended optical platform." The profile of the EOP receiver raises scope mounts 1" over the top of the stock and float tube. A Picatinney rail compatible Weaver-style optical mount runs the length of Rock River's EOP upper receiver. Additionally, the rear of the receiver bridge is dished to accommodate the large eyepieces common to high magnification varmint scopes.

For accuracy Rock River fits a stainless steel, air-gauged barrel from Wilson to all of its varmint rifles. The barrels feature a recessed crown to protect the origin of the rifling and a bull contour 0.920"

61241; (309) 792-5780; www.rockriverarms.com CALIBER: .223 Rem. ACTION TYPE: gas-operated, center-fire, semi-automatic **RECEIVER:** forged aluminum upper and lower with matte-black finish BARREL: 24" air-gauged, stainless steel Wilson RIFLING: six-groove, 1:8" RH twist' MAGAZINE: none supplied; takes AR-15 magazines SIGHTS: no metallic sights; raised flat-top EOP upper with rail for mounting optics TRIGGER: two-stage; 4 lbs.

6 ozs. pull STOCK: length of pull, 13%"; drop at heel, 1/2"; drop at comb, 1/2" OVERALL LENGTH: 421/4"

WFIGHT: 10 lbs. 2 ozs. SUGGESTED RETAIL PRICE: \$950 *Other Options Available.

in diameter forward of the hand guard and a slightly thicker 1.050" underneath.

Rock River's competition origin reveals itself in its choice of a barrel with a 1:8" rifling twist and Bill Wylde chamber dimensions. The Wylde chamber is essentially a .223 Rem. with a shorter throat to



minimize bullet jump for those, such as NRA high-power shooters, who need to get the most accuracy out of the heavy 80-gr. Sierra bullets for long-range shooting. For those who prefer shooting lighter varmint bullets in the 40- to 60-gr. weight range, Rock River offers a 1:12" twist as an option available in rifles with the 24" barrel length.

Accuracy is further enhanced by means of an aluminum fore-end tube that shrouds the barrel and ensures it is free-floated. Shallow grooves increase the tube's surface area for more rapid cooling. A quick-detachable sling swivel eases the attachment of a sling or bipod.

Furniture for the Rock River Varmint includes a black synthetic stock with the longer A2-style contours and dimensions as well as a military-style slip ring at the toe. Checkering on the stock's synthetic butt plate helps limit slippage in the shoulder pocket.

A good trigger is no small consideration in a varmint rifle; accordingly the Rock River Varmint features a two-stage match unit. The trigger of our test sample broke cleanly at 4 lbs., 6 ozs. pull after minimal take up.

For accuracy testing we mounted a Tasco 8-24X Varmint Scope to EOP receiver with Weaver rings. To make best use of the rifle's 1:8" twist and Wylde chamber we selected match and varmint hollow point loadings in bullet weights ranging from 52 to 80 grs. It has been our experience

SHOOTING RESULTS					
.223 Rem. Cartridge	Vel. @ 15' (f.p.s.)	Energy (ftlbs.)	G Smallest	roup Size I Largest	n Inches Average
Federal Gold Medal 69-gr. Sierra BTHP No. GM223M	2887 Avg. 18 Sd	1,290	0.65	1.06	0.82
Hornady A-Max (Match) 75-gr. BTHP (Moly-coated) No.80263	2868 Avg. 18 Sd	1,384	0.76	1.14	0.93
Black Hills (Match) 80-gr Sierra BTHP (USAMU load)	2979 Avg. 24 Sd	1,592	0.83	1.22	1.06
Average Extreme Spread	:				0.94

Measured average velocity for 10 rounds from a 24" barrel. Range temperature: 86° F. Humidity: 9%. Accuracy for five consecutive, five-shot groups at 100 yds. from a sandbag. Abbreviations: BTHP (boat-tall hollow point), Sd (Standard deviation).

in some previous tests that, in terms of accuracy, the lighter bullets perform far better than the heavier loadings even in guns with a tight 1:7" or 1:8" rifling twist. As can be seen in the accompanying table, the RRA Varmint's Wylde chamber really paid off as the difference in accuracy between the light and heavy bullets was significantly less than we have seen in some match AR-15-style rifles we tested in the past.

The RRA Varmint is clearly built for its purpose. About the only things out of place on the gun are the grooves in the top of the gas block for mounting iron sights and the sling loop on the toe of the stock. The rail is unobtrusive and does nothing to hinder its performance or utility as a varmint gun. The sling loop however can cause the stock to slip when held between the ears of a bunny bag. Thankfully the fix is very simple as the shooter can remove the sling loop by turning out the bottommost slotted screw in the butt plate.

When the opportunity to take the RRA Varmint on a Wyoming prairie dog hunt materialized last summer we mounted a Harris bipod to the QD stud on the float tube and pulled the sling loop on the toe of the stock. Of course, an accurate gas gun always makes a good varmint hunt better, but the RRA Varmint's accuracy with heavy bullets added still more by letting us shoot at the longest ranges allowed by its .223 Rem. chambering. Those who want to bring a little more thunder to their next dog hunt would be well advised to consider the RRA Varmint.



A recessed muzzle crown (above) protects the rifling of the Rock River Arms' stainless steel 24" barrel.



The soft, overmolded Hogue rubber pistol grip has a little "give" for greater comfort while adding insulation from firing heat. Its pebbled surface also prevents the firing hand from slipping.



Rock River's EOP, or "extended optical platform," raises scope mounts 1" above the top of the stock.



A QD stud under the freefloating fore-arm allows for instant attachment/detachment of a bipod.