



SWIVEL KNIVES: IT'S ALL IN THE HAND

BY NICK PERNOKAS

While the history of modern leather tooling can be traced back several centuries through the Spanish, to the Moors, some of the tools that are used today have a murkier past. One of the tools found on almost any leather tooler's bench today is something of a mystery. A necessity for the craftsman who is producing Western-styled, hand-tooled products, the swivel knife probably did not exist in its current form even 100 years ago.

Today, there are a lot of different styles and makes of swivel knives and almost as many opinions on the proper size and blade as there are leather workers. However, as recently as a century ago, craftsmen in the saddle shops of the West were still laboring to produce intricate tendrils and flowers with rigid cutters.

Leather tool guru **Bob Douglas** of Sheridan, Wyoming, has actually seen some of these knives in the collections of early Western saddlemakers. Usually they were cold chisels that had linen thread wrapped around the handle for grip. The blade was turned by using the wrist. Eventually, leatherworkers experimented with ways to make manipulating the blade easier on their hands. The late **Don King** told Bob Douglas of the swivel knife he made as a boy when he was working for Porter's in Arizona. It was simply a blade pushed in to the bottom of a twig with a piece of tin on the top for a yoke. A nail held the tin on and allowed the yoke to turn. Undoubtedly there were other similar experi-

ments carried out until swivel knives became available commercially.

F.K. Russell, of Dallas, Texas, was an early leather tool maker who is known to have made swivel knives and had patents on other leather tools as early as 1909. All of his work would predate his death in 1931. William Salter, a saddlemaker at Porter's in the Twenties has also been credited with designing the modern swivel knife. **P. B. McMillen Tool Company** produced it as the W.S. Professional Swivel Cutter with a double adjustment, and it is still in their catalogue today but no longer available. C.S Osborne produced an early swivel knife with a non-removable blade. All of these had knurled handles and were neatly finished.

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Bob Douglas made a mock up of both the old chisel knife and Don King's first swivel knife and took them over to the King Museum where custom leather worker **Jim Jackson** works. Jim put both of them to the test and was able to demonstrate that both were able to



On the top is a primitive swivel knife made out of a blade stuck in a twig, with a tin yoke on top held in place with a nail. It was built by Bob Douglas according to the story Don King told about how he built his first swivel knife.
Photo by Lee Douglas

On the bottom is a leather carving, or cutting knife like the ones used by many early leatherworkers. It was made by Bob Douglas out of a cold chisel with linen thread wrapped around the shaft. This was the precursor to the modern swivel knife.



▲ This picture shows what a great leather carver can do with a simple tool. Jim Jackson made the flower cuts with the twig swivel and the long cuts with the chisel. Photo by Lee Douglas

produce some good quality cuts. Jim actually was able to use the chisel by putting one finger on the top and turning it with his others.

Jim was no stranger to this type of knife as his dad, saddlemaker Edward Jackson, gave him a similar stub type knife to learn to carve leather with when he was a boy. He still uses some single bearing knives that Don King built but also tries everything else. He has quite a few different makes and styles of knives and likes a smaller, lighter one for light leather. He also feels that the smaller barrels turn quicker. Jim likes an adjustable knife so he can raise the cradle as the blade wears down.

Jim prefers a hollow ground blade because it sharpens quickly and he feels that it's easier to maneuver for very

fine work. He also likes an angled blade occasionally on small work.

"I tell my students that they should try as many things as they can," says Jim. "There are new products coming out all the time and some of the new composite blades are really good. You need to upgrade your tools. It's fun to try new blades, but I like metal, and I like to sharpen my blade."

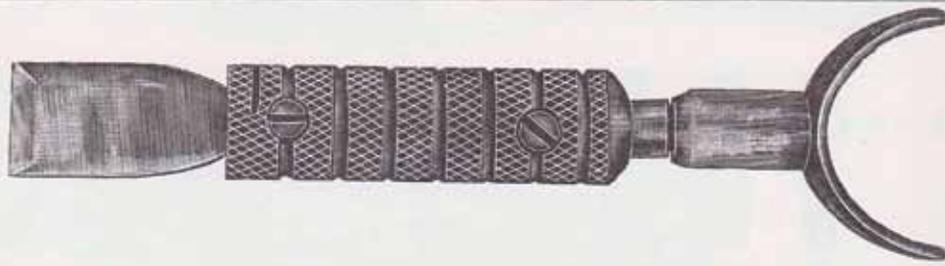
Jim recommends using a jig to sharpen the blades. He likes to stroke it back and forth on a smooth oilstone, and then finishes it with a strop.

"The key to sharpening is that you have to be able to see yourself in the blade when you're finished."

Jim thinks that swivel knives all have different "personalities," just like the user, so you have to find what works the best for you.

"The beauty of using a swivel knife is that it is a simple tool that allows you to draw on the leather," says Jim.

Barry King is a talented tool maker who carries on in the footsteps of his grandfather, Don. Barry makes the traditional swivel knife that Don made and used. Its simple design includes a free spinning bearing which makes it an affordable \$45.00. Its height can be adjusted and it comes in five different barrel diameters. He offers seven different hollow ground blades made of hardened tool steel as well as beader blades and blades for other swivel knives. The



No. 940 W. S. Professional Swivel Cutter.
Double adjustment.

No. 940A Extra Blades. Sizes: 1/4-inch, 3/8-inch, 1/2-inch, 5/8-inch.
All Blades are 1/8-inch thick.
Either hollow ground or regular.

▲ The W.S. Swivel cutter may be the oldest continuously produced swivel knife. Courtesy McMillen Tool Company

blades start at \$15.00. His most popular knife has a 7/16" diameter barrel with a 1/4" hollow ground blade.

Lonnie Height is another traditionalist who produces a swivel knife that has been around a long time. He runs Gomph-Hackbarth Tools in Elfrida, Arizona, and was partners with Ellis Barnes for years until Ellis passed away in 2009. Lonnie's smooth single ball swivel knife comes in a 1/2" and 5/8" barrel and the height can be adjusted. It sells for \$65.00. Lonnie makes an assortment of high carbon steel, hollow ground and angled blades, and he stresses that you need the correct blade for the job.

Lonnie says, "Most toolers have five or six swivel knives and ten or so different blades and they don't use the same one all the time." Lonnie feels that the blade is more important than the knife. "A good blade will work

on a crummy knife, but a bad blade won't work on a good knife."

Lonnie is continuing the tradition of Gomph-Hackbarth but emphasizes that he is selling good service as well.

In Shreveport, Louisiana, there is a small company by the name of **Henley Manufacturing** that is becoming well known for the quality of their blades. Louis Henley's business

has been making mechanical Timber Harvesters for the last forty-six years. One of the secrets of this equipment was the "Extreme Alloy" which he came up with for blades to cut timber. When his son, Tony became interested in leatherwork, he had trouble keeping his swivel knife sharp. Tony decided to make a blade out of the "Extreme Alloy". Louis was skeptical, but it worked. Soon other saddlemakers were clamoring for the blades for

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their own swivel knives. Now they make thirty different blades in various widths and thicknesses, primarily in hollow ground, but they also make beader and angled blades.

Henley is also making swivel knives with 1 ½" and 2" barrel heights in five different diameters. There are two sets of instrument bearings in the yoke for smooth operation. The only problem is that they got so much business for their swivel knives that it interfered with their timber machinery so they stopped advertising.

- ▼ Al Stohlman made his first swivel knives out of wood. Courtesy King Museum Collection



- ▼ Eventually Stohlman would own knives such as this rare jeweled one. Courtesy King Museum Collection



Louis laughs, " Now, when Tony has an idea, I don't say anything!"

Other swivel knife makers have gone even more high tech. **Robert Beard**, a noted leather craftsman and tool maker from Farmington, New Mexico, took five years to develop what he calls "the smoothest swivel knife in the world." His Pro Series, 18 ball bearing knife comes in an attractive blued finish and the blades are shaped to blend seamlessly into the barrel. Bob builds the knife in twelve different styles, from 3/8" to 5/8" diameter barrels with the heights being either 1 ¾" or 2 ¼". The knife is adjustable, and Bob can custom build different height barrels. His most popular seller is a ½" barrel with ¼" straight blade for tiny cuts, a 3/8" straight blade for general saddle work, and a ½" straight blade for gentle curves or straight lines. Bob recommends a larger diameter barrel for folks with cramping or arthritic hands. The knives start at \$100.00.

Bob makes almost any kind of blade from straight to hollow ground and angled. He makes beader, hair, and double cut blades. They range from ¼" to 5/8" wide. Bob has definite ideas about which blades he prefers.

"The hollow ground blade looks shiny when you sharpen it but has zero mechanical advantage," states Bob. He feels that the corner of a straight blade can do everything a hollow ground blade can do, has more stability, and is easier to sharpen properly. For this



▲ These are the swivel knives that Don King used. Note the variety in knives and blades. Courtesy Don King Western Museum Collection

reason, he suggests the straight blade to his customers and students for general carving.

Bob recommends only using a fine natural oil-stone of some sort to sharpen the knife, and he uses a back and forth serpentine motion on it to avoid striations. He finishes the blade on a strop with jewelers rouge. Bob also says that the Japanese water stones are excellent for the job.

Chuck Smith of Valley Center, California, is another toolmaker who has embraced modern designs in his swivel knives. Chuck started carving leather in 1948 and is widely recognized for both his leatherwork and his leather carving seminars. He recently completed tooling a guitar for famed musician Eric Clapton.

Chuck started making swivel knives in 1992. He was looking for a

smoother feel and a little different blade. By using fourteen ball bearings, he created a knife with no drag at all.

"Over the years the style of carving keeps changing," says Chuck, "and we've gone from a thicker blade down to a thinner blade, so who knows what's going to be the next thing."

Chuck's most popular knife right now has a 7/16" diameter barrel with a 3/8" straight blade, although he also make barrels in 3/8", 1/2", 9/16", and 5/8". Chuck also offers a selection of cobalt blades. He believes that there is no rule of thumb for selecting the size; rather, an individual should use what feels comfortable.



These are some old swivel knives that are just some of the antique tools on display in the Don King Western Museum. Courtesy King Museum



▲ These are some of Jim Jackson's swivel knives. The fourth from left has no swivel, only a brass cup.



▲ In this photo of Jim Jackson's knives, you can see the variety that he uses. The first 3 on the left were made by Chuck Smith, 4th by Don King, 5th and 6th by Craft Company, Japan, 7th and 8th by Paul Zalesak, and the last 9th-11th are by Barry King.

"Look at Ray Pohja, he was one of the best carvers ever, and he used a 5/8" barrel with a thick 5/8" blade. And he did some fine cuts with it too."

"There's no wrong way or right way to use that knife but there is a right way and a wrong way to make those cuts," continues Chuck. "Chester Hape pushed the knife all the time and was an outstanding carver. Don King hung his finger over the barrel. The style

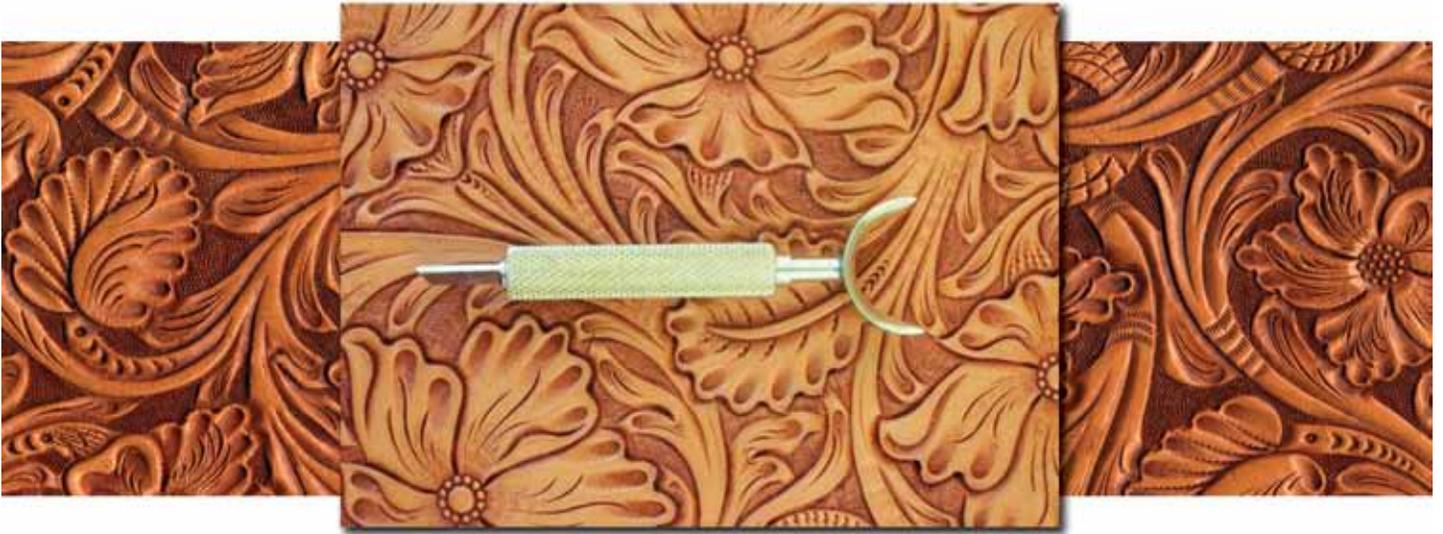
of holding the knife never seemed as important as mastering the cuts."

Chuck personally likes to use the same knife and blade for all of his carving. He believes that what works best for any one person is what he get use to. He points to Cliff Ketchum who always used a sharpened (automotive) points file for his blade which worked just fine. Chuck adds that he has done this too for decorative cuts.

Paul Zalesak of Leather Wranglers, in Albuquerque, has probably taken the high-tech swivel knife the farthest into the realm of the non- traditional. He offers a lightweight custom swivel knife, the SK3, that even comes in quite a few colors.

Paul's father was a woodworker, and Paul learned to carve leather from Jim Resley. Paul was always curious as to why his father's wood chisels stayed sharper, longer than the blades he used to cut leather.

In 2001 he got serious about finding out the answer. Paul went to Sandia National Laboratories and, through a program designed to aid small businesses in New Mexico, was able to get electron scanning microscope pictures of traditional steel blades before and after they were used on leather. He discovered that the reason that they were getting dull was more because of the corrosion that occurred on the metal when it reacted with the chemical residues in wet leather than through abrasion. The different tanning processes



This traditional Sheridan style knife was made by Barry King. Courtesy Barry King Tools

also affected the amount of time it took for the blade to start dragging in the leather.

Eventually, Paul was able to come up with an alloy that had been used in the medical and aerospace industries years before which resisted the corrosion.

Now Paul offers this alloy in his straight and angled blades that range from 1/8" to 1/2" wide. He will custom grind a blade to your choice of angle and thickness down to almost 1/32". That's pretty thin. Because of the hardness of the alloy, Paul recommends sharpening the blades with a diamond hone and finishing them on a strop with green polishing compound for harder metals. Paul can also make his blades to fit other knives.

His SK3 knives are custom built with ball bearings in the adjustable yolks, with 1/2" and 3/8" barrels, and come in nine colors. They start at \$135.00, built with your choice of yoke, barrel, color, and blade combination.

While the space age look may appeal to some, there are a lot of regular old swivel knives sold

every year. Many come from places with one-stop shopping and a wide variety of prices. How many future saddlemakers will be introduced to the swivel knife through the basic **Tandy Leather Factory** model? I know I still have one sitting on my bench that is about a 1970 model. TLF still sells it for around \$13.00 but also have a fancy Al Stohlman model with a stacked leather handle.



▲ Paul Zalesak's SK3 knives are built to customer specifications, and even come in different colors. Courtesy Leather Wranglers

Weaver Leather offers several models ranging from an affordable \$9.00 to a nice brass one for \$33.00. C.S. Osborne still sells the original fixed swivel knife for \$20.00, but they also have their old swivel model for \$65.00.

Whatever you end up trying out, there is certainly something for everyone. But remember what a talented set of hands can do with a simple tool. As Bob Douglas says, "The Sheridan style of tooling all started with a twig and a piece of tin."

My thanks go out to Bob Douglas and Jim Jackson for helping with this article. Bob is well known for his collection of vintage tools as well as all the unique new ones he makes. He can be reached at 307-737-2222.

Jim Jackson is very well known for his custom leatherwork in our circles, but he is also an excellent painter with showings in several galleries. If you ever get to see him combine the two mediums, you'll be impressed. Jim's number is 307-674-1741.

▼ Chuck Smith 's swivel knife was designed to do what he thought was necessary after fifty years of leatherworking. Courtesy Lana Smith



TO FIND OUT MORE ABOUT SWIVEL KNIVES YOU CAN CONTACT

- **McMillen Tool Company**
573-374-7880
- **Barry King Tools**
307-672-5657
- **Lonnie Height/
Gomph-Hackbarth Tools**
520-642-3891
- **Henley Manufacturing**
318-631-3545
- **Robert Beard/Pro Series Tools**
505-632-7039
- **Chuck Smith Tools**
760-749-5755
- **Paul Zalesak/Leather Wranglers**
505-269-8563
- **Tandy Leather Factory**
817-872-3200
- **Weaver Leather**
800-932-8371
- **C.S. Osborne**
973-483-3232
- **The King Museum**
307-672-2702