PROS' **PICKS** SLADE www.blademag.con WORLD'S Triple Stages Of Actor/Knifemaker Johnny Strong's Combat Assassin To Watch In 2012 **GOING HOGUE!** Fast Factory Knives

Smithsonian Worthy

Takes A Lickin' And Keeps On Lockin'



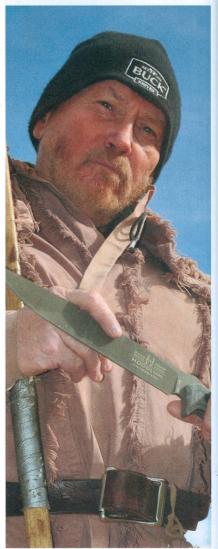




million in sales to more than \$500 million. Plus, as of this past summer, Victorinox was producing over 100,000 knives per day. (November)

Grabbing Ground: In addition to prying and heavy cutting, another reason for a bomb disposal tech to have a fixed blade is "grabbing ground." According to maker Les Adams, before touching anything metal, the bomb tech grounds himself by sticking the blade into the ground to discharge static electricity that might otherwise detonate the explosive. (December)

Deaths In The Family*: Listed in alphabetical order, the following passed away during the year: Ray Appleton, Cutlery Hall-Of-Famer Blackie Collins, Cutlery Hall-Of-Famer Dan Dennehy, Ron Frazier, Ron Hood, Steve Likarich, Arlan



Survivalist and author Ron Hood

Takes a Lickin' and Keeps On Lockin'

No matter the configuration nor the materials—here in damascus and stag from 1988-the Buck 110 folding hunter is the king of modern lockbacks. (Buck Knives photo)

Along with his father, Blade Magazine Cutlery Hall Of Fame member Al Buck, Cutlery Hall Of Famer Chuck Buck helped lead Buck Knives when it introduced the Buck 110 in 1964. (Buck Knives photo)

DATING BACK HALF A MILLENNIUM. THE LOCKBACK IS SPECIAL AND TIMELESS

ne of the most popular folder locking mechanisms, the lockback is proof positive that everything old is new again. Most knife enthusiasts are aware of the influence the lockback has had for what is going on 60 years now with the Buck 110 folding hunter, even though the mechanism's origin goes back much further. Its ease of carry, safety and durability make for a useful

knife, and in both the factory and custom segments of the industry, the lockback continues as a staple of production, craftsmanship and sales.

"You can make the lockback strong and heavy duty," remarked Blade Magazine Cutlery Hall-Of-Fameo member Sal

Glesser of Spyderco. "We built a special machine to test and break stuff, and [the lockback] is a very heavy-duty lock at up to 200-inch pounds of strength for every inch of blade. By its geometry, the lockback is capable of as much strength as you build into it."

Glesser cites a couple of additional reasons for the rise and popularity of the lockback. The lockback spring can be easily positioned so it will not close inadvertently on the user, while the mechanism

According to Bill Claussen, co-author of Sheffield Exhibition Knives, the lockback has been around in various forms since 15th-century Spain. This antique whittler marked "T. MARSH SPLENDID CUTLERY" sports a lockback mechanism and was made circa the 1840s-1850s. (photo from Sheffield Exhibition Knives)

Lock Back

Left hand handle shown removed to see internal components. For additional information describing this lock style see http://www.akti.org/PDFS/AKTIDefinitions.pdf



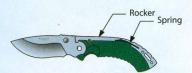
Blade open view shows rocker locking blade in the open position. Rocker is held in position by the spring.



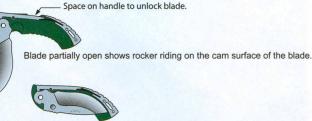
Blade closed and held in place by rocker and pressure of spring.

Mid-Lockback

Left hand handle shown removed to see internal components.



Blade open view shows rocker locking blade in the open position. Rocker is held in position by the spring.



Blade closed and held in place by rocker and pressure of spring.

itself is easy to operate.

"The lockback has evolved over time," Glesser explained. "The configuration of the locking bar changed in the mid-'70s after Harvey McBurnette showed Al Mar how to do that. Now, there are front, mid and rear lockbacks, and the advantage of the lockback produced by Al Mar is that the kicker of the blade is located where the lock pivot is, so the edge of the blade did not hit the spring. We asked Al for permission to use his lock on our early knives and still use a lock that is essentially the same to this day."

One concern for the lockback has been the level of engineering required in its construction. "The lockback is an engineering challenge," Sal concluded, "and shortening the [lock bar for the frontand mid-lockback models makes it even harder to do. Because it is difficult to make, we have worked as recently as the last two years on refining the lock to virtually eliminate play in the blade."

Lockback Lineage

Despite or perhaps because of its requirement for tight tolerances, the lockback has a substantial lineage. According to Bill Claussen, co-author of Sheffield Exhibition Knives, the lockback has been around in various forms since 15th-century Spain. Other European cutlers-including the French, Italians and English-have produced lockback variants during the past 500 years or so.

In the modern era, Claussen cites the Buck 110, which hit the market in 1964, as an industry icon. "It changed the face of modern pocketknives," he commented. "Although lockbacks had been introduced to the U.S. for more than 200 years, they were not made affordable and convenient in mass production until Al Buck introduced his knife. This knife was quickly

"A LOT OF THE STRENGTH OF THE LOCKBACK DEPENDS ON THE WIDTH OF THE LOCK BAR AND THE POSITION IN FRONT, BACK OR ABOVE THE BLADE." —STEVE HOEL

adopted by sportsmen, tradesmen, truckers and other workmen as an ideal, allaround, heavy-duty work knife. Vintage 110s are hard to find today, and one in mint condition will cost a small fortune if vou can find one."

Chairman of the board at Buck Knives, Cutlery Hall-Of-Famer Chuck Buck recognizes the pivotal role the 110 has played in modern lockback development, and acknowledges the challenges that surrounded the original premise of a practical production lockback. "The lockback actually is a bar that goes across the back of the blade with the spring under it, and when you push down on the bar it rocks on a stainless rivet," he said. "So, that was always hard to get exact because you did not want it to be loose and it needed to fit perfectly.

"You need to do fine blanking of the blades to achieve that and for years components had been machined, but with fine blanking you can get that done. We worked with the design for quite a few months, and it was all new to us. That was in 1963. The first knives on the market totaled about 250 in 1964, and then in 1965 we ended up making about 10,000 of them. It just grew from there. The 110 continues to be one of our most popular knives, and we are producing them now at a rate of over 1,000 per day. We have a whole crew that just makes the 110 folding hunter. To Buck, it has been something that has sold every year, and it just keeps getting better."

Over the years, there have been a few tweaks to the lockback design of the Buck 110. For example, during the 1970s it was discovered users were placing a great deal of pressure on the blade, and the brass rivet in the mechanism itself was shearing. The brass rivet was replaced with a stainless steel component, and the 110 continues to sell well around the world. From large retailers to mom-and-pop hardware stores, from Main Street to Moscow, the Buck 110 is a knife user's mainstay.

No Excess Motion

From a custom perspective, knifemaker Steve Hoel has wrestled with the lockback in his shop. "They've been making lock-



Because the lockback is difficult to make, Spyderco CEO Sal Glesser said his company has worked as recently as the past two years on refining the lock to virtually eliminate play in the blade. The special-edition Spyderco C41TN sports the lockback configuration. (Spyderco photo)

backs for years, and everybody is making them now," he remarked. "If the lockbacks are engineered right and the angles are right, then you have no excess motion. It's simple to operate and strong, and can be done without a lot of expensive equipment. The lockback can be made with nothing more than a file if you know what you're doing. They're tough but, if they're made right, you can eliminate all the slop and rattle

"I don't think there are a lot of big weaknesses in the lockback. They're more complicated to make right than a LinerLock™, and you've got to understand some engineering principles. It isn't rocket science, but there's some science involved, and Ron Lake [helped write] a book [How To Make Folding Knives] that you can read to help make a good knife. You can come up with some mechanisms that will work well and are reasonably simple, but you can't scale them down to a small knife without running into problems. A lot of the strength of the lockback depends on the width of the lock bar and the position in front, back or above the blade. If you don't pay attention, you can get down to some weak points."

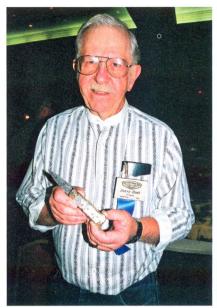
The lockback mechanism itself, particularly among custom makers, has

seen some streamlining and refinement over the years. While the principles are constant, improvements relate to the availability of better materials and higher-quality fit and finish. Some older lockbacks could not stand up to a lot of hard work and were clunky or overbuilt.

"I started out taking old knives apart and fixing them and modifying things in them," Hoel recalled. "If you back up 60 or 70 years ago, the old pocketknives had 90/1000ths holes with 84/1000ths pins in those holes a lot of times, so it was not like using a taper pin or bushing that holds things solid. The ones we make now are more solid, primarily through better craftsmanship and materials that have evolved."

The Human Element

Claussen asserts another aspect of the popularity of folding knives and of lockbacks in particular has to do with human nature. "It's their mystique," he related. "People seem to have a fascination for complicated things, plain and simple. This is generally true in life and very specifically in the collecting field. Watches, clocks and other collectibles are favored because of their complication. The general rule, with all things being equal, is



Award-winning maker Steve Hoel said the custom lockbacks made now are more solid, primarily through better craftsmanship and materials that have evolved.

that the more complications, the more desirability, hence greater value. To have a locking feature with a knife definitely adds mystique, aura and increased value."

Perhaps therein lies the secret to the success of the Buck 110 and other production or custom lockback folders that have reached such prominence. Practical, strong lockup increases safety and security in operation. Folding knives carry more easily than fixed blades, and it can be argued that their deployment is somewhat easier than that of fixed blades in certain situations. Modern materials and knifemaker experience have enhanced the quality of the lockback on all fronts, and the mechanism has become accessible to the general public like never before.

Still, there is something about that tight, solid lock, the feel in the hand of the user, which makes the lockback so special and so timeless.

For the contact information for the knives pictured, see "Where To Get 'Em" on page 86

To read similar stories and all about the latest knives, knife news, forums, blogs and much more, see http://knifeshowcase.blademag.com.

BLADE