STRING BENDER

By Edward B. Driscoll, JR. & Dan Forte

.The StringBender allowed White to perfect a unique and enduring playing style, as it's a much different device than the traditional vibrato arm (like a Bigsby) on electric guitars — or "tremolo" arm, as Fender literature incorrectly refers their whammy bars. It was the ability to play a bent note in combination with a stationary note, or having more than one string moving — essentially aping what a pedal steel does — that attracted Clarence and became the foundation of a whole new approach to the guitar. "The StringBender allows for a totally tunable,

bendable note," says Meridian Green, a singer/songwriter and daughter of the late folk singer Bob Gibson. Green joined StringBender, Inc. in 1988 and became the company's CEO.

"It's much more 'pedal-steely' because you get to hear this one note moving really smoothly from the starting position to a full-step up," she explains. "And when people get really good, they can do half-step bends and stuff like that.

But as early recordings of Nashville West (not released until 1976) reveal, White was achieving multiple-bend pedal steeltype licks with his fingers prior to the StringBender's arrival; so he and Parsons essentially invented a device to fit a style that Clarence was already playing. Of course, White wasn't the only player, then or now, to emulate steel licks on a standard electric guitar; Amos Garrett, Gerry McGee, Roy Buchanan, Jerry Donahue, Thumbs Carllile, and others incorporated steel-like bends into their playing decades ago.

Parsons had suggested routing out White's Telecaster for the mechanism, but per White's request, the initial Bender mechanism was largely mounted *on top of* the guitar's back, and covered with a piece of wood shaped like the Tele's back. This made the guitar look like an extra-thick Telecaster, which was fine with White, who was used to playing Martin D-18 acoustics. Parsons says, "He'd only been playing electric for a couple of years, so he said, 'That'll actually help me if you build the body out.' He also put Scruggs

[banjo] tuners on the high E and the A.'

The original patent — for a "shoulder strap control for string instruments" — was filed under the names of Gene Parsons, who invented and built it; Clarence White, who, as Gene says, "invented the need for it and the way to play it" and refined the concept; and Ed Tickner, then-manager of the Byrds, who financed it and arranged for it to be licensed to Fender.

Visiting Fender, Episode I

In 1968, Parsons and White took their design to Leo Fender, who was still a consultant with the company that bore his name after its sale to CBS. Parsons says that Leo, an inveterate tinkerer himself, was intrigued by the idea, and created a prototype for a mass-produced version. "Leo and George Fullerton liked it a lot," Parsons says, "and the company gave Leo the okay to do a prototype. And Leo built a very nice, easily mass-produced prototype, which was a combination of a couple of ideas — one being the StringBender, the other being a guitar that was pretty much bullet-proof. Leo made Clarence jump up and down on the thing, and it just bent like a spring, but was still reasonably in good tune."

Unfortunately, though, still in the wake of the CBS takeover, there was a lot of hiring and firing going on, and, in Gene's words, "We had to re-educate a whole new crew, and they were all kind of looking over their shoulder, realizing that the bunch

before them all got fired. So they weren't wanting to stick their necks out with much new product, and it got stalled.

At that point, Parsons licensed it to Dave Evans, who built "a sort of sandwich type of Tele" and made some modifications to the Bender. It was an Evans version that Albert Lee acquired, and played some of his most famous solos with; he still uses it to this day, along with a Parsons model. "There are different schools of thought," Gene allows. "Some people like a short, jerky stroke, which is the way the Evans and the Glaser are. In other words, you don't move very much, and the string moves a whole tone. I didn't remember how far the travel of the strap pin moved on Clarence's original model until I later measured it. In order to raise that B string one full tone, that lever is traveling an inch and one-eighth. That's much longer than my standard version, which is a half-inch to five-eighths. But a lot of people listen to what Clarence did on those old records and say, 'How did he get such a sweet bend?' Part of it is Clarence's technique, but the other part is that he had this machine that made it easy to do a really slow, linear, sweet bend. So for close to 10 years, I've had a long-stroke option available for the ones I produce here. The way I explain it is, it's not so much the destination when you're bending, it's the trip that gives it the intrigue.'

Parsons, now 59, eventually began making and installing StringBenders himself, but sadly, Clarence White died in 1973. He was loading his guitar into his car after a jam session when he was hit by a drunk driver. He had just turned 29. As for his original StringBender-equipped axe, country star Marty Stuart now owns it.

Hand-Crafting The StringBender

Back in the 1960s, though, after Parsons completed White's guitar, the next player who wanted a Bender was Bob Warford, who had played banjo with the Kentucky Colonels and was playing guitar with Linda Ronstadt and the Everly Brothers. "He emulated Clarence like crazy," Meridian says, "but sadly lacked a Bender.'

"I gave him my drawing," Parsons continues, "and he had a friend who worked in a machine shop, and he modified it slightly, but built himself a StringBender, with a little coaching from me. So that was the second one."

Then, when Parsons first went into production of StringBenders, there was a transitional design. "I made the strap lever in one piece, and in order to install it, I had to route all the way to the bout just above the neck. So there's a big slot there, with a big aluminum plate that covered it. It looked a little bit clunky. It was a little bit on the crude side, but it worked. Then I refined it by making the strap lever in two pieces so I could just put a slot there and not route all the way to the back face of the guitar; in other words, have the strap lever working in an elongated hole rather than a deep cut in the guitar. I could put just a little trimplate over that, which looked much more sanitary, and it kept more of the integrity of the body of the guitar."

In the mid-1970s the design of what has come to be known as the Classic Parsons/White StringBender (to differentiate it from the version that Parsons and Meridian Green would later create for Fender), would be finalized.

"I realized that I needed to go to a little bit more modernized, more refined design," Gene says. "So I began building what is currently the Classic StringBender." Since then, Green speculates there have been between 1,500 and 2,000 guitars equipped with the Classic Parsons/White mechanism in Parsons' machine shop in Caspar, California, 150 miles north of San Francisco.

Over the years, variations by other manufacturers have surfaced. Joe Glaser's aforementioned unit, which is much more compact and pivots from the guitar's neckplate, has been the choice of Ricky Skaggs, Steve Wariner, Ron Wood, Keith Richards, Brent Mason, Brad Paisley, whose setup operates the G string, and Diamond Rio's Jimmy Olander, who prefers a Glaser double-bender, hooked up to the B and G. HipShot, which operates with a lever at the base of the guitar's body (against the player's hip), is an option for players who don't want to route their guitar; it's endorsed by Will Ray of the Hellecasters. And Frank Reckard, who followed Albert Lee into Emmylou Harris' Hot Band, had a custom-made unit attached to the back of his Les Paul Junior, fashioned by Thomas J. Sullivan — the "Sulli Steel" — although he now plays a Glaser-equipped Music Man. A more elaborate system was designed by the late Phil Baugh, featuring cables and pedals going to each string — a concept Steve Hennig later employed in his self-designed variation.



Meridian Green

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STRINGBENDER

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Vintage Guitar Magazine • April 2004 Vol. 18 No. 06

Branching Out in the Mid '80s

Meridian Green's association with Gene Parsons began in 1986, when Parsons was still machining all of the parts for his StringBender mechanism by hand, except for the unit's pull hub, which, due to the complexity of the machining required, he farmed out. Because Green and Parsons were both working musicians who wanted to resume playing live, Green suggested that Parsons stop machining his own parts and have them produced for him. At first, Parsons was incredulous.

"We'd have to do bigger runs than we can afford," he told Green, who replied, "Well, that's only if we don't let anybody do the installations. Why don't we figure out how to get some other people doing the installations?"

The result was a series of StringBender-licensed firms installing the units, which simultaneously allowed Parsons and Green to spend more time playing, rather than producing parts and modifying guitars. (Parsons and Green have both recorded several CDs, available on stringbender.com; however, Gene continues to personally install StringBenders to this day and welcomes inquiries via parsons@stringbender.com.)

Fender, Take II

In the late 1980s, Meridian also contacted Fender, by then free of CBS's control and busy setting up its innovative Custom Shop. She eventually hooked up with Fred Stuart, then a senior master guitar builder with the company, and a man Green describes as "the most amazingly enthusiastic builder at the Custom Shop, especially as far as Benders go. He had the Telecaster tattooed on his bicep — he's serious about this stuff!"

Stuart produced a
Clarence White Model Tele
with the Classic
StringBender installed that
was sold by the Custom
Shop, which proved to be a
surprisingly popular axe.
And Stuart, Parsons, and
Alan Hammel of the Custom
Shop collaborated on a
unique doubleneck
Telecaster with two six-string
necks, each with its own



Fender's verison of the B bender requires the guitar's back to support a metal plate.

Bender mechanism. This guitar, originally produced for a NAMM show and since purchased by a collector, can be seen in the coffee table book *Fender Custom Shop Guitar Gallery*, by Richard R. Smith and the Pitkin Photography Studio (Hal Leonard, 1996). Other variations have included an electric 12-string and a baritone.

The Working Man's Bender

According to Stuart, Fender produced about 200 Classic Parsons/White StringBender-equipped Teles virtually by hand in the Custom Shop — a surprising number for such a seemingly esoteric feature. Based on those numbers, in the mid '90s Fender decided to truly mass-produce the device, offering an "American Nashville B-Bender" Telecaster, with two Telecaster pickups, a Stratocaster middle-position pickup, and a Strat-style five-way selector switch. But first, Parsons and Green had to redesign the Bender's mechanism to better suit assembly-line production.

Parsons' original mechanism requires that the guitar be routed, and then all of the parts installed into positions carved into the wood of the rout – a complex and labor-intensive procedure. This was fine for the craftsmen of the Custom Shop, but impossible for an assembly line, where each person is skilled in only one or two tasks. Green suggested they flip the design over, making the entire mechanism mount onto a back plate that attached to the guitar. Parsons and Green obtained a new patent, and licensed the newly dubbed Parsons/Green design to Fender. The new unit also simplified routing by relocating the B-Bender's tuner (a small wheel designed to ensure that the bent note at its peak is in tune) to the back plate as well, rather than requiring a separate hole in the top of the body as in the Classic Parsons-White mechanism

"All of the components are mounted onto the plate," explains Gene, "and then it's screwed onto the guitar as a unit. Fender wanted to make a lot of these things and install them easily. On the Parsons/Green, instead of a hub, we have more like a pedal steel mechanism, which is a rocker arm or a pendulum; instead of revolving, it actually tilts, like a lever. It mounts onto the plate, and it has a little tower that protrudes though a little hole that goes all the way through the guitar, and comes up behind the bridge."

This newer style also doesn't stick above the guitar's face as high as the hub (the wheel that would turn the B string behind the bridge to raise the pitch when the strap lever was pulled down) stood up on the original version.

The result is a Bender-equipped Telecaster, easily affordable for most serious players. The mechanism, though designed for mass production, works as well as the original Parsons/White. About the only unfortunate aspect of the whole enterprise is its Nashville moniker, which suggests the instrument is only suitable for country players. With StringBender players as diverse as those already mentioned, as well as Pete Townshend, Bernie Leadon, the Black Crowes, and Metallica, nothing could be further from the truth (see accompanying discography for a list of suggested listening).

Tangents With A Framework

Since licensing the B-Bender design to Fender, StringBender, Inc. has come up with some surprising variations on its form. In addition to Teles, Parsons has installed units in Les Pauls — Jimmy Page has played a StringBender-modified Les Paul since the mid 1980s, most prominently on "Thank You" on the 1995 MTV "Unledded" special — and the company has produced Double Benders, which allow the player to bend both the B and G strings. They also make a nifty B-Bender that installs in acoustic guitars, with surprisingly minor modification.

Parsons enthuses, "That's the one that I'm in love with right now. There were some inherent problems with that; for starters, putting any kind of machinery in an acoustic guitar has the potential of taking sound away from the guitar, because of the mass of it. Also, how the hell do you get this thing inside an acoustic guitar? It's kind of like building a ship in a bottle. So the first prototype I made, we built the StringBender and then built the guitar around it. It took me about 15 years to work out all of the bugs, but I eventually made all the components so that they could be installed through the soundhole. It attaches to the guitar's neck block. It's a beautiful device, very light, and it can be installed without doing any modifications to the top of the guitar. I engineered the device so there'd be a minimum of metal with a maximum of strength. A slot has to be made in the bout for the strap lever to come through with the current model, but the pulling lever goes into the bridge pinhole. It's just a foolproof, wonderful gadget, and it works really well. It's a very musical apparatus."

Casper Rawls, guitarist with Austin's Toni Price, as well as the LeRoi Brothers, has several Bender-equipped Teles and an early version of Gene's acoustic Bender, and has demoed StringBenders at several NAMM shows.

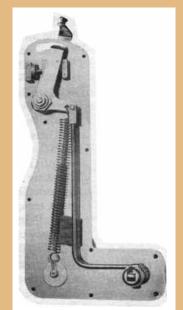
"The true genius of Gene Parsons is his continuing evolution of his music and his device," he says. "He didn't just co-invent [the Bender and his own niche what became 'country-rock'] and sit back; he continues to refine and improve both. The new acoustic Bender is flat-out amazing."

Parsons speaks in equally glowing terms of Rawls, claiming he can tell where Casper has been on tour by the calls he gets from new customers. On a given night, Rawls will quickly dispel any notion that the gizmo is strictly for country music — playing blues, rock, Cajun, and even surf music, seamlessly incorporating the StringBender all the while. "He's our man in the field," Parsons laughs. "He's

StringBender all the while. He's our man in the field," Parsons laughs. "He's been a wonderful advocate of StringBender, spreading the word. He goes around and plays it, and people can't believe what they're hearing. So they ask, 'How are you doing that?' And he'll take the time to show them what the StringBender is. We've gotten a lot of inquiries as a result of that."

Just what makes the StringBender so special? Green speculates that the basic design that Parsons and White hit on has endured all these years because of its logical and intuitive mechanism. "When you go to bend a string, you're bending it with your left hand already. The brain wiring is already running through the left hand. So if, instead of pushing up one string, you push down on the neck with your thumb, it still goes down the same neural pathway. Which is why I think so many people are able to incorporate it as such an integrated part of their playing style."

The StringBender has survived, evolved, and flourished for more than 30 years, and hopefully players in a variety of styles will still be bending their B strings for at least another 30. Nothing would make Gene Parsons and Meridian Green (and no doubt Clarence White) happier.



Fender's B bender mechanism.