## The Industry's **Unsung Heroes**

ver the past few decades, the publishing industry has worked overtime, churning out countless books on instruments and instrument makers. Shelves in our offices are crammed with numerous histories of the Martin, Fender, and Gibson guitar companies, not to mention ones telling the stories of lesser known makers such as Burns, Mosrite, and LoPrinzi. We also have a sizable collection of "coffee table" tomes filled with beautiful photos that precisely chronicle the guitar's evolution, just in case we need to settle an argument about what year Rickenbacker added the three-way selector switch to its 620 model. These efforts to retell the compelling story of the American guitar industry show no signs of slowing down: witness the recent release of The Birth of Loud, a new book that, without a trace of irony, is billed as "the untold story behind the Les Paul and Leo Fender rivalry that shaped rock 'n' roll." Shelf space allotted to books on the piano and the violin is only slightly smaller. Histories of Steinway & Sons abound, as do books that promise to reveal The "Secrets" of Stradivari.

The audience for these writings reflects an understandable love for and fascination with beautiful instruments and their makers. These, after all, are the tools that have shaped our musical culture. Less understandable is the limited attention devoted to comparably significant high-tech pioneers and their innovations. Books on this subject are virtually non-existent. James B. Lansing invented the modern loudspeaker, which arguably provided the voice of rock 'n' roll, yet his story is rarely told. Aside from his three initials that grace a well-known company logo, he is an obscure figure. The AT&T engineers who developed the amplifier circuitry that Leo Fender borrowed for his guitar amplifiers are even more obscure. Is there anyone who even knows their names? The MIDI standard is one of the most transformative technical developments of the past century, one that has had a profound impact, not only on electronic musical instruments, but on every piece of electronics that produce sound, from computers to gaming consoles. Although MIDI is in wide use wherever music is made, the dramatic story of how Dave Smith and Ikutaro Kakehashi persuaded an entire industry to set aside competitive differences and adopt a common standard elicits little or no interest. The powered loudspeakers that have become an industry staple didn't happen by accident. They came about because Pat Quilter and a team of engineers at QSC ingeniously figured out how digital technology could be harnessed to create lightweight power amps that didn't generate heat. If there's a book that provides the backstory on this important development, we haven't heard of it.

These are just a few of the important stories that don't enjoy wider circulation. Maybe it's because audio and electronic technology doesn't take center stage like a lead guitarist. Or perhaps it's because the process of shaping a piece of fine wood is easier for a layman to understand than the task of writing an algorithm. It could also be that engineering types are usually not the most adept at self-promotion. Whatever the reason, the personalities mentioned above and countless other innovators sorely deserve more recognition.

The stories of these great engineering talents and their contributions to the world of music would fill volumes. Space precludes such a history here, but as a partial substitute, the data presented in the Music Industry Census helps



quantify the magnitude of their impact. Of the 50 product categories tracked in the report, the ones that are based on technology dating from the mid-20th century or later generate about 50% of the industry's total revenue. That would include all electronic musical instruments, most audio products, recording gear, DJ products, software,

and even guitar effects devices. Engineering brilliance can also be found in the millions of pocket-sized digital tuners sold each year, the DSP-enhanced pickup systems in acoustic guitars, and the player piano systems installed in high-end grand pianos.

These technical feats are not unlike great art. Just as a Rembrandt painting is the result of a singular individual's ingenuity and enterprise, so too are the advances catalogued above. Unlike painters, though, the authors of these innovations usually don't get to autograph their work. As a result, we don't know their names, and all too often we take their work for granted. As either a retailer or a musician, we'd urge you to take a moment to give thanks for the talent that lies behind the products that either underpin your business or expand your creative horizons. Collectively they've made our industry, and the world, a better place and are deserving of more recognition.

Brian T. Majeski Editor brian@musictrades.com