

## **Academia: The Harmonica**

The harmonica is a free reed wind instrument which is played by blowing air into it or drawing air out by placing lips over individual holes (reed chambers) or multiple holes. The pressure caused by blowing or drawing air into the reed chambers causes a reed or multiple reeds to vibrate up and down creating sound. Each chamber has multiple, variable-tuned brass or bronze reeds which are secured at one end and loose on the other end, with the loose end vibrating and creating sound.

Reeds are pre-tuned to individual tones, and each tone is determined according to the size of reed. Longer reeds make deep, low sounds and short reeds make higher-pitched sounds. On certain types of harmonica the pre-tuned reed can be changed (bending a note) to another note by redirecting air flow into the chamber. There are many types of harmonicas, including diatonic, chromatic, tremolo, orchestral, and bass versions.

The harmonica is used in blues and American folk music, jazz, classical music, country music, rock and roll, and pop music. The harmonica has other nicknames, especially in blues music, including: "harp," "blues harp," and "mouth organ." Other less-common names include: hand reed, Mississippi saxophone, pocket sax, toe pickle, tin sandwich, ten-holed tin-can tongue twister, and French Harp.

### **History**

The harmonica was developed in Europe in the early part of the 19th century. Free reed instruments like the sheng were fairly common throughout East Asia for centuries and were relatively well-known in Europe for some time. Around 1820, free reed designs began being created in Europe. While Christian Friederich Ludwig Buschmann is often cited as the inventor of the harmonica in 1821, other inventors developed similar instruments at the same time. Mouth-blown free reed instruments appeared in the United States, South America, the United Kingdom and in Europe at roughly the same time.

### **Early instruments**

The harmonica first appeared in Vienna, where harmonicas with chambers were sold before 1824 (see also Anton Reinlein and Anton Haeckl). Richter tuning was in use nearly from the beginning. In Germany, Mr. Meisel of Geschichte des Akkordeonbaus in Klingenthal, Schwarzmeisel and Langhammer, bought a harmonica with chambers (Kanzellen) at the Exhibition in Braunschweig in 1824. He and Langhammer in Graslitz copied the instruments; by 1827 they had produced hundreds of harmonicas. Many others followed in Germany and also nearby in what would later become Czechoslovakia. In 1829, Johann Wilhelm Rudolph Glier also began making harmonicas. In 1830, Christian Messner, a cloth maker and weaver from Trossingen, copied a harmonica his neighbour had brought from Vienna. He had such success that eventually his brother and some relatives also started to make harmonicas. From 1840 onwards, his nephew Christian Weiss was also involved in the business. By 1855, there were at least three harmonica-making businesses: C. A. Seydel Söhne, Christian Messner & Co., and Württ. Harmonikafabrik Ch. WEISS. Currently, only C.A. Seydel is still in business.

Owing to competition between the harmonica factories in Trossingen and Klingenthal, machines were invented to punch the covers for the reeds. In 1857, Matthias Hohner, a clockmaker from Trossingen, started producing harmonicas, eventually to become the first person to mass-produce them. He used a mass-produced wooden comb that he had made by machine-cutting firms. By 1868, he began supplying the United States. By the 1920s, the diatonic harmonica had largely reached its modern form. Other types followed soon thereafter, including the various tremolo and octave harmonicas. By the late 19th century, harmonica production was a big business, having evolved into mass-production. New designs were still developed in the 20th century, including the chromatic harmonica, first made by Hohner in 1924, the bass harmonica, and the chord harmonica. In the 21st century, radical new designs are still being introduced into the market, such as the Suzuki Overdrive and Hohner XB-40.

Diatonic harmonicas were designed primarily for the playing of German and other European folk music and have succeeded well in those styles. Possibly unforeseen by its makers, the basic design and tuning proved adaptable to other types of music such as the blues, country, old-time and more. The harmonica was a success almost from the very start of production, and while the centre of the harmonica business has shifted from Germany, the output of the various harmonica manufacturers is still very high. Major companies are now found in Germany (Seydel, Hohner - once the dominant manufacturer in the world, Japan (Suzuki, Tombo, Yamaha), China (Huang, Leo Shi, Suzuki, Hohner) and Brasil (Hering). Recently, responding to increasingly demanding performance techniques, the market for high quality instruments has grown.

### **Early use: Europe and North America**

Shortly after Hohner began manufacturing harmonicas in 1857, he shipped some to relatives who had immigrated to the United States. Its music rapidly became popular, and the country became an enormous market for Hohner's goods. President Abraham Lincoln carried a harmonica in his pocket,[7] and harmonicas provided solace to soldiers on both the Union and Confederate sides of the American Civil War. Frontiersmen Wyatt Earp and Billy the Kid played the instrument, and it became a fixture of the American musical landscape.

The first recordings of harmonicas were made in the U.S. in the 1920s. These recordings are 'race-records', intended for the black market of the southern states with solo recordings by DeFord Bailey, duo recordings with a guitarist Hammie Nixon, Walter Horton, Sonny Terry, as well as hillbilly styles recorded for white audiences, by Frank Hutchison, Gwen Foster and several other musicians. There are also recordings featuring the harmonica in jug bands, of which the Memphis Jug Band is the most famous. But the harmonica still represented a toy instrument in those years and was associated with the poor. It is also during those years that musicians started experimenting with new techniques such as tongue-blocking, hand effects and the most important innovation of all, the 2nd position, or cross-harp.