***Tenbin* Bellows**

*Tenbin* (literally, “scales”) bellows are an improvement on the basic foot-operated plank bellows, which resemble a seesaw. This technology was first used in 1691, according to the *Tetsuzan kyūki* (Old chronicles of the Iron Mountains), a record of *tatara* history that is safeguarded by the Itohara family.

The laborious task of continuously pumping the bellows over three or four days of smelting fell to workers called *banko*. The *banko* took turns standing in the center of the bellows with each foot on a wooden pedal. Gripping a hanging rope for balance, they leaned their weight first on one foot and then the other, forcing air into the furnace with each step on the pedals. Clay walls were built between the furnace and the bellows to protect the *banko* from the roaring flames, which reached heights of 2 meters. Since the *banko* on one side of the furnace could not see the movements of the *banko* on the other, they often chanted songs to keep a steady pace (and to maintain morale) through the long smelting process.

You can experience what it was like to be a *banko* on the life-sized replica displayed here. Feel free to try working the *tenbin* bellows, but be sure to hold onto the hanging rope for safety.