Basic Detail Report

Guitar

Date

1902

Primary Maker

Orville Gibson

Description

In 1898, Orville Gibson was awarded the patent for an "Improved Mandolin," using principles that could be applied also to "guitars, mandolas, and lutes." The invention was that of a back, neck, and ribs structure carved from one piece of wood, with an arched soundboard and slightly hollowed neck. Gibson believed that standard construction hindered the acoustical capacities of plucked stringed instruments, as he stated in his patent: "Heretofore mandolins and like instruments have been constructed of too many separate parts bent or carved and glued or veneered and provided with internal braces, bridges, and splices to that extent that they have not possessed that degree of sensitive resonance and vibratory action necessary to produce the power and quality of tone and melody found in the use of the instrument below described . . . . The front or sounding-board and the back board are carved in a somewhat convex form to give them the proper stiffness and are preferably the thickest at and near the center. They are attached to the rim by gluing and form an upper and lower closure to the hollow body of the instrument. It will be observed that with the parts thus constructed and put together no braces, splices, blocks, or bridges are necessary in the interior of the body of the instrument, which, if employed, would rob the instrument of much of its volume of tone and the peculiar excellency thereof." This archtop guitar design, influenced by violin construction, marked the beginning of a significant development in American guitar making. In 1898, Orville Gibson was awarded the patent for an "Improved Mandolin," using principles that could be applied also to "guitars, mandolas, and lutes." The invention was that of a back, neck, and ribs structure carved from one piece of wood, with an arched soundboard and slightly hollowed neck. Gibson believed that standard construction hindered the acoustical capacities of plucked stringed instruments, as he stated in his patent: "Heretofore mandolins and like instruments have been constructed of too many separate parts bent or carved and glued or veneered and provided with internal braces, bridges, and splices to that extent that they have not possessed that degree of sensitive resonance and vibratory action necessary to produce the power and quality of tone and melody found in the use of the instrument below described . . . . The front or sounding-board and the back board are carved in a somewhat convex form to give them the proper stiffness and are

preferably the thickest at and near the center. They are attached to the rim by gluing and form an upper and lower closure to the hollow body of the instrument. It will be observed that with the parts thus constructed and put together no braces, splices, blocks, or bridges are necessary in the interior of the body of the instrument, which, if employed, would rob the instrument of much of its volume of tone and the peculiar excellency thereof." This archtop guitar design, influenced by violin construction, marked the beginning of a significant development in American guitar making. NMM 10855 is built using the principles described in Gibson's patent, with no internal bracing or blocks. Though carved from exceptionally large pieces of walnut, it is lightly constructed and resonant. The instrument features Gibson’s signature star and crescent inlay on the paddle-shaped peghead, oval soundhole, dark finish, and abalone binding. On November 11, 1902, soon after NMM 10855 was made, the Gibson Mandolin-Guitar Mfg. Co. was founded in Kalamazoo. Though he was never an owner, Gibson received royalties and consulting fees from the company. However, due to the demands of mass-production, Gibson’s integral body and neck construction was abandoned in favor of more traditional methods, although the distinctive arched tops and decorative features were retained. Stringing: six steel strings Soundboard: arched, two-piece, quarter-cut spruce: wide grain Back: one-piece, slab-cut walnut carved with rounded edges Ribs: walnut, built up from two layers over back and carved; upper rib layer integral with neck Head: walnut “paddle-head” inlaid with white abalone crescent, second piece of wood grafted on end; black lacquer on face Neck: walnut; integral with head and upper rib layer; hollowed with round hole in base Heel cap: none; back comes to point at neck heel Binding: alternating blocks of white and dark abalone on top only Fingerboard: ebony; 20 nickel-silver frets; single mother-of-pearl dots behind 5th, 7th, 10th, 15th, and 17th frets; double mother-of-pearl dots behind 12th and 20th frets Nut: bone Bridge: ebony with chamfered, raised squares at each end with mother-of-pearl eyes (probably added later to cover screws); bone saddle; ebony bridge pins with mother-of-pearl eyes; maple bridge plate expanded later Pegs: six nickel-silver tension pegs with ivoroid heads Endpin: black celluloid Rosette: oval soundhole with rosette set in 1/4” from edge; rosette comprised of white abalone strips surrounded on each side by strips of angled, alternating light and dark hardwood, which in turn are surrounded on each side by smaller strips of angled, alternating light and dark hardwood Pick guard: none Lacquer: black on top and on headstock; clear on back, ribs, and neck; later Linings: none Neck block: none End block: none Top bracing: none Grafts: none

Dimensions

Total guitar length: 1038 mm (40-7/8″) Back length: 543 mm (21-3/8″) Upper bout width: 314 mm (12-3/8″) Waist width: 260 mm (10-1/4″) Lower bout width: 457 mm (18″) Rib height (including edging) at heel: 59 mm (2-5/16″) Rib height, at waist: 58 mm (2-9/32″) Rib height, at endpin: 58 mm (2-9/32″) Head length: 176 mm (6-15/16″) Head width, top: 91 mm (3-9/16″) Head width, bottom: 65 mm (2-9/16″) Neck length (nut to ribs): 317 mm (12-1/2″) Neck width, nut: 41 mm (1-5/8″) Neck width, heel: 64 mm (2-1/2″) Soundhole height: 80 mm (3-5/32″) Soundhole width: 145 mm (5-21/32″) Vibrating string length (nut to bridge edge): 652 mm (25-21/32″)