

The Roots of the Banjo in Africa and Antebellum America:
History and Construction

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History of Musical Instruments: Technical Aspects

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The banjo as we know it today both physically and in its style of performance has its roots in the plucked lutes of West Africa. It was brought first to the West Indies and later to America as a byproduct of the transatlantic slave trade. As cultures intermingled in the new world the instrument began to evolve into something uniquely American.

Early incarnations of the banjo were made by those who played it from available materials, as tastes and techniques of the performers changed over time, the banjo underwent a significant makeover. White adopters of the banjo in Antebellum America created a new market for the instrument leading to skilled craftsmen, most prominently John Boucher, Jr. and James Ashborn, beginning the production of an updated type of banjo, more suited to stage performance.

By reviewing available primary documents including written and visual accounts along with extant instruments, it is possible to trace the development from its African ancestors to the more or less modern instruments of James Ashborn. The developments made in banjo construction and performance prior to the Civil War set the stage for a vast array of innovations and an explosion of banjo culture in Victorian America.

There are two main types of African lutes that are thought to have influenced the creation of the early banjo, the xalam (khalam, kalam or halam) and the akonting (ekonting). Paul Oliver, a British architectural historian and blues scholar, first identified the xalam as the most likely predecessor to the banjo in his 1970 book titled *Savannah Syncopators: African Retentions in the Blues*. This assertion remained essentially unchallenged for two decades until the banjo scholars Ed Britt and Bob Winans began to

question the distinction during a concert by Basaiku Basekon Kouyate, a n'goni¹ master, performing at the Tennessee Banjo Institute in 1990.

As Peter Szego points out, the problems with the distinction of the xalam as the immediate precursor to the banjo are of three types, the instruments construction, playing style and cultural use.² Firstly the xalam is typically constructed of a long, narrow, oval shaped piece of wood, hollowed out with a skin head stretched over it. The instrument is a short necked, semi-spiked lute, meaning that the neck does not extend all of the way through the body. The neck is secured to the body by penetrating the head of the instrument at the top of the body, it then exits and reenters the head toward the base of the instrument where a hole is cut in the head to expose the end of the dowel, which is the extension of the neck. The fan-shaped bridge supports four to six strings and rests on the end of the dowel; the strings are affixed over grooves in the bridge to the dowel by means of cotton thread. At the neck of the instrument, the strings are tied by leather strips that can be moved up or down the neck to adjust the tuning. The instrument typically has two main melody strings and two or three drone strings.

Three examples of this type of instrument may found in the Metropolitan Museum of Art's Crosby Brown Collection of Musical Instruments. Where they are labeled as

1. The n'goni, xalam and are two of a type of very similar instruments¹ played by the griot musicians West Africa. A griot is a hereditary praise singer and storyteller responsible for oral history of their people. They are found among many peoples of West Africa. Xalam is the term used by the Wolof peoples of West Africa while the term n'goni is used by the Mande peoples. There is also another instrument in West Africa referred to as the molo which may refer to either a griot or non-griot instrument depending on the location. For further information on griot lutes see Shlomo Pestcoe's "Griot Lutes" at http://www.shlomomusic.com/banjoancestors_griotlutes.htm.

2. Peter Szego, "Searching for the Roots of the Banjo – Part II." *The Old-Time Herald* 10, no. 5 [June-July 2006]: 15.

“halam.” One of these instruments, accession number 89.4.1236, is fitted with a rattle on the top of the neck. The other two instruments, accession numbers 89.4.473 and 89.4.475 are more typical examples without the attached rattle.

The second issue concerning the xalam is the method of playing which differs from early banjo performance in significant ways. The ethnomusicologist and composer Michael Coolen stated in his article, “The Fodet: A Senegambian Origin of the Blues?” in the journal *Black Perspective in Music*, that the xalam was played with “a technique in which the performer, using the thumb, index finger, and middle finger of the right hand, strikes down on the strings rather than plucking up on them.”³ While this description would fit with the “clawhammer” or “frailing” style of early banjo playing, it does not accurately describe the performance practice of Kouyate who plays with a combination of brushed down-strokes and upward picking with the fingers. Basaiku Kouyate can be seen performing on the n’goni alongside the modern banjo virtuoso Béla Fleck in the 2009 documentary *Throw Down Your Hear*, directed by Sascha Paladino.⁴

The third inconsistency between the n’goni and the early banjo has to do with the class of griot performers in Africa. As previously mentioned griots are of a hereditary class in highly-stratified sub-Saharan Islamic village societies, and may have been somewhat protected from being sold into slavery due to their ritualistic role.⁵ With respect to the semi-spiked lutes of West Africa this would make the banjo a closer relative to the non-griot incarnations of the molo.

3. Coolen, 75.

4. The scene featuring the playing of Kouyate begins at approximately 1:08:00 in the film.

5. Peter Szego, “Searching For the Roots of the Banjo - Part II,” 15.

Finally in 2000,⁶ more scholarship emerged with a first hand account of an instrument that appears to be a closer relative to the banjo than the xalam. The akonting was brought to the fore by Laemu Daniel Jatta and Ulf Jagfors. Jatta, a Gambian-born member of the Jola people and American-trained economist, was first struck by the similarities between the banjo and the Gambian akonting while he was studying in the U.S. in the mid 1980's. In 1985 he returned to Gambia to learn to play the instrument from his father. His observation remained unpublicized until Jatta was living in Sweden in 1999. There he attended a lecture by Jagfors on the origins of the banjo. Following the lecture the two men met and Jatta told Jagfors about the akonting. The following year the two men presented a paper on the akonting at the third Banjo Collectors Gathering in Concord, Massachusetts and instantly changed the thinking on the roots of the banjo.⁷

The akonting shares some remarkable similarities to the early gourd banjos. Firstly the physical characteristics of the akonting and the banjo are very similar. The body of the akonting is made from a large gourd that is cut to create a flat surface to which a stretched animal hide is affixed. The instrument is a full-spike lute, meaning the neck of the instrument extends all of the way through the body and protrudes from the bottom of the instrument where it serves as an anchor point for the strings. The bridge has two feet that rest directly on the head of the instrument. The strings pass through grooves on the bridge before terminating beyond the body of the gourd on the end of the necks extended dowel. Unlike the banjo which utilized tuning pegs, even in its earliest forms,

6. Though this seems to be the accepted story in the academic banjo world, Daniel Jatta points out that Pete Seeger included an image of an akonting in his 1954 book *How to Play the 5-String Banjo*. Daniel Jatta, "The Senegambian Akonting: The Origin of the Banjo," Daniel Jatta, <http://web.comhem.se/abzu/akonting/akont.html> [accessed May 3, 2013].

7. Ibid.

three strings are attached to the neck end by means of leather ties however the top string is tied shorter than the rest creating a high pitched drone, like that of a banjo. An interesting linguistic relationship also exists in that the Jola term for the neck of the akonting is “bango,” which is pronounced “banjo” in Portuguese.⁸

The technique of playing the akonting, referred to as o'teck⁹, meaning “to stroke,” is clearly related to the claw-hammer technique employed by early banjo players. The melody is picked with the back of the fingernail in a downward motion while the thumb plucks the chanterelle string (top, short string), also in a downward motion creating a backbeat. The thumb may also strike the melody strings, again in a downward plucking motion. The employment of the thumb on the melody strings is seen in claw-hammer banjo technique where it is referred to as “drop-thumbing.”¹⁰ Daniel Jatta may also be seen performing on the akonting in the documentary *Throw Down Your Heart*.¹¹

The cultural use of the akonting is also more similar to the use of the banjo. The akonting is available for any member of a community to play and is used to accompany communal singing. Daniel Jatta explains on Shlomo Pestcoe's informative website, that “The music of the akonting has been and still is folk music. Akonting players do not play music to confer status to their patrons. They play their music, usually in the evenings after work to relax and have a nice time before going to bed.”¹²

8. Peter Szego, “Searching For the Roots of the Banjo - Part II,” 16.

9. Shlomo Pestcoe, “The Akonting and Other Folk Lutes of Africa's ‘Rice Coast’,” Shlomo Pestcoe, http://www.shlomomusic.com/banjoancestors_akonting.htm [Accessed April 10].

10. Peter Szego, “Searching For the Roots of the Banjo - Part II,” 16.

11. The scene featuring the Jatta family begins approximately at 0:45:00.

12. Shlomo Pestcoe, “The Akonting and Other Folk Lutes of Africa's ‘Rice Coast’,” Shlomo Pestcoe, http://www.shlomomusic.com/banjoancestors_akonting.htm [accessed April 10,2013].

Pestcoe also relays Jatta's memory of being told not to play the akonting outside the village in the evening for fear it would attract "devils." This tidbit illustrates the very real fear instilled during the days of the transatlantic slave trade when the Jola villages were easy targets for raiding parties looking to capture people to sell to the Europeans on the Atlantic coast.¹³ Jatta also believes that "once the slavers discovered that on-board exercise was essential to reducing the death rate during the Middle Passage, they began to capture Jola musicians living along the mouth of the Gambia River and the Atlantic coastline to provide accompaniment aboard ships bound for the New World."¹⁴

Most of the descriptions of early gourd banjos in the New World have been uncovered by Dena Epstein beginning with her seminal work on early African-American music, *Sinful Tunes and Spirituals; Black Folk Music to the Civil War* and in her article titled "The Folk Banjo: A Documentary History" from the September 1975 issue of *Ethnomusicology*. In Epstein's research the earliest report from the Western hemisphere of a banjo-like instrument appears in 1678 in Adrien Dessalles *Histoire Générale des Antilles* and is based on material found as early as 1654. This reference is a statement prohibiting the gathering of Africans where they dance to the accompaniment of drums and the "banza."¹⁵ Since then another earlier reference to an African plucked lute has been found in Alonso Sandoval's *De instauranda Aethiopum salute* which has been translated in *Treatise on Slavery: Selections from De instauranda Aethiopum salute, Edited and Translated, with an Introduction, by Nicole von Germeten*. This reference,

13. Shlomo Pestcoe, "The Akonting and Other Folk Lutes of Africa's 'Rice Coast'," Shlomo Pestcoe, http://www.shlomomusic.com/banjoancestors_akonting.htm [accessed April 10, 2013].

14. Peter Szego, "Searching For the Roots of the Banjo - Part II," 16.

15. Dena Epstein, "The Folk Banjo: A Documentary History," *Ethnomusicology* 19, no. 3 [1975]: 351.

however, is vague and may indicate any number of plucked lutes with a skin head of African origin. It reads, “Some [Guineans] play guitars similar to our Spanish-style guitars, although they are made of rough sheepskin.”¹⁶ There are a number of additional references to proto-banjo instruments in the West Indies which can be found in Dena Epstein’s works.

In early America there are many references to the banjo with the seventeenth century accounts often including descriptions. One such description is from Nicholas Creswell’s journal from Nanjemoy, Maryland, in an entry dated May 29, 1774.

Mr. Bayley and I went to see a Negro Ball. Sundays being the only days these poor creatures have to themselves, they generally meet together and amuse themselves with Dancing to the Banjo. This musical instrument (if it may be so called) is made of a Gourd something in the imitation of a Guitar, with only four strings and played in the same manner.¹⁷

Another, similar entry is from the German naturalist, Johann David Schoepf, who described the “Banjah.” “Over a hollow calabash (*Cucurb lagearia L.*) is stretched a sheep-skin, the instrument lengthened with a neck, strung with four strings, and made accordant.”¹⁸ By 1810 most of the written references to the banjo do not include a description leading one to believe that the instrument was sufficiently well known to necessitate an explanation.¹⁹

16. Alonso de Sandoval, *Treatise on Slavery*, ed. and trans. Nichole Von Germeten [Indianapolis: Hackett Publishing Company, Inc., 2008], 27-28.

17. Nicholas Creswell, 1924, 18-19. Quoted in Dena Epstein, “The Folk Banjo: A Documentary History,” *Ethnomusicology* 19, no. 3 [1975]: 353.

18. Epstein 354.

19. Epstein 355.

There are also, iconographic sources documenting banjo-like instruments from the colonial period in the Western Hemisphere. Two from the late eighteenth century show very similar instruments documented a great distance apart. One image comes from Sir Hans Sloane in his *Voyage to the Islands...*²⁰ with an engraving of two “strum-strums,” which are clearly full-spike lutes with gourd bodies and skin heads affixed by nails or tacks. These two instruments are fitted with only two strings through friction style tuning pegs onto flat necks.

The other image is from somewhere near Charleston, Virginia, and is an anonymous watercolor titled “The Old Plantation.” This instrument seems to be a more evolved variant of the gourd banjo having four strings affixed to tuning pegs at the neck and a tailpiece at the tail; one of the strings is a short chanterelle string, and a bridge has two feet. There appear to be five or six decorative soundholes cut into the gourd.

Into the nineteenth century the number of images increases exponentially especially as photographic technology became viable in the middle of the century.

The only authentic instrument known to survive from the very earliest stage of banjo development is held by the *Rijksmuseum voor Volkenkunde* in Leiden, Netherlands. The instrument was collected by Gabriel Stedman before 1777 and was featured in the Brussels Musical Instrument Museum’s exhibition simply titled *Banjo!* Classified as a “creole bania,” it was collected from Netherlands Guyana, now Suriname. It is a full spike lute made from a gourd with four soundholes cut into the lower side and one s-

20. Hans Sloane, *A Voyage To the Islands...* [London, 1725], accessed via Google Books, pg. 766-767.

shaped soundhole which would face the player covered with a stretched skin head affixed where the gourd has been cut flat and a wooden neck and strung with gut. Unlike its African cousins, the neck is flattened on the playing surface and has peghead of a complicated s-curve shape, oriented like that of a violin with the pegs entering from the side of the pegbox. The instrument has four strings, one of which is a chanterelle string.²¹

Banjo playing was essentially an African-American pastime into the early nineteenth century. Dr. Rex Ellis, the Associate Director for Curatorial Affairs at the National Museum of African American History and Culture at the Smithsonian Institution, explains the crossover.

As blacks and whites interacted, it was inevitable that the banjo would not remain exclusive to the African-American community. In the early decades of the nineteenth century, Americans began searching for a culture that was unique to them. They sought a common experience that glorified white American democracy – that was not tied to the elite, aristocratic society that had dominated the Colonial period. White Americans, especially Northerners, had also begun to show interest in what they understood from a distance to be the exotic and anomalous blacks, and they wanted to know more about their connection to Southern plantation life.²²

The interest in African-American culture eventually led a few white musicians to learn the banjo directly from black musicians.²³ Some of these early players went on to become the earliest minstrel performers and made fairly serious attempts to emulate plantation culture while also providing an entertaining show. This attempt at earnestness

21. Mia Awouters, ed., *Banjo!* [Brussels: Muziekinstrumentenmuseum, 2003], 26.

22. Rex Ellis, "African Americans and the Banjo," in *The Birth of the Banjo*. Katonah Museum of Art [Katonah, NY: Katonah Museum of Art, 2003], 22.

23. For further reading on the transmission of authentic black performance practice to white musicians see Cecelia Conway, "Appalachian Echoes of the African Banjo," in *Appalachians and Race: The Mountain South From Slavery to Segregation*, ed. John C. Inscoe [Lexington, KY: 2001], 27-39.

was unfortunately not long lived and minstrelsy quickly became the black-faced performance of degrading stereotypes and blatant racism.²⁴

The most important among the first wave of white banjo players was the Virginian Joel Walker Sweeney (1810-1860). Sweeney is recorded as having learned to play the banjo from African-American slaves on a nearby plantation and was performing publically by the 1830's. In Robert Carlin's contribution to the catalogue for *The Birth of the Banjo* exhibition for the Katonah Museum of Art he tells of two common tales of Sweeney. The first story is that Sweeney made his own banjos by the age of seven, using gourds and the skins of his mother's house cats. The second story is that Sweeney is essentially created the modern banjo by stretching a sheep-skin over a meal sifter and attaching a flat neck.²⁵ This story was basically accepted by his contemporaries and can be found related in the writings on Frank Converse (1837-1903), where he states that Sweeney "is accredited the construction of the instrument as it is now known."²⁶

There is one extant instrument c. 1840 attributed to Sweeney in the possession of the Natural History Museum of Los Angeles County. It is a left-handed fretless banjo with a very characteristic peghead. This is considered to be the most famous surviving minstrel banjo. It is pictured in exhibition catalogue for *Ring the Banjar!*, the first major

24. The best contemporary account of early minstrelsy is provided by Frank B. Converse (1837-1903) in his a memoire titled "Banjo Reminiscences," published in fifteen installments in *Cadenza* magazine from June of 1901 to September of 1902. Frank B. Converse, *A History of the Banjo: Frank Converse's Banjo Reminiscences*, Edited by Paul Heller [N.p.: Paul Heller, 2011].

25. Robert Carlin, "Early Banjo Players and Banjo Music," in *The Birth of the Banjo*. Katonah Museum of Art [Katonah, NY: Katonah Museum of Art, 2003], 29.

26. Converse, 14.

museum exhibition to feature the banjo held at the MIT Museum in Cambridge, Massachusetts in 1984.²⁷

The earliest American banjos were made by the players themselves using gourds, various types of animal skins, a wooden neck and any number of types of homemade strings. Unfortunately there are no existing American slave-made banjos; this is not particularly surprising due to the fragile nature of the materials used. Frank Converse explains the state of instruments, and players when he began to play the banjo:

Banjo players, or those who wished to be, were not very numerous when I began, nor, in fact, were banjos either, those in stores being poor affairs. The best were mostly home-made. I well remember my first banjo with its pine neck, rim formerly a flower sieve and the drum tacked on with brass-headed tacks...

My next banjo was somewhat different, really a fine toned, substantial instrument. It was made by a carpenter acquaintance; had a nicely polished cherry neck (at that time frets had not been applied to the finger-board); a peck measure cut down for the rim, and a dog skin drum obtained for me by "Jim" Wambold... who took occasion one dark night to kill somebody's dog, and, removing its skin, had it prepared at a nearby tannery. Good heads were difficult to obtain in those days.²⁸

Such was the state of banjo making before craftsmen, recognizing the opportunity, began to craft quality banjos for serious players.

If one is to take the number of extant instruments as a sign of how prolific a maker was, then William Esperance Boucher Jr. (1822-1899) is one of the prominent banjo makers of the Antebellum period. Boucher became the first manufacturer of banjos,

27. Robert Lloyd Webb, *Ring the Banjar!*, MIT Museum [Cambridge, MA: 1984], 9.

28. Converse, 12-13.

possibly aided by his association with Joel Walker Sweeney.²⁹ His instruments helped to standardize some basic aspects of the banjo including use of five strings and a circular, wooden pot, with a stretched animal skin head tensioned by brackets with screw-mechanisms. Boucher's innovations helped the banjo in the transition from the plantation to the stage and allowed for greater production of an instrument that was durable and versatile enough to be suited for live performance.³⁰

Boucher donated three instruments to the Smithsonian Institution in 1890. The instruments (catalog numbers 094764, 094765 and 094766) were made in 1845, 1846 and 1847 respectively and are representative of his instruments of the time. They are all fretless, five-string banjos with hook and screw head tensioning systems of varied types. The instrument made in 1847 is quite different in its construction from the 1845 and '46 models.³¹

Boucher continually experimented with the pot and tensioning system of his banjos. Early examples have holes cut into the rim to allow clearance for a wing-nut thus allowing the adjustments to be made without longer screws which would terminate beyond the plane of the back of the instrument. He later used a scalloped pot, as seen in the Smithsonian 1846 Boucher, number 094765. Boucher also made double-headed instruments, that is with an animal skin head stretched over the back of the instrument as well as the top. One version of this had the tension hooks anchored through a shoe

29. Phillip F. Gura and James F. Bollman, *America's Instrument: The Banjo in the Nineteenth Century*, [Chapel Hill: University of North Carolina Press, 1999], 56.

30. Smithsonian National Museum of American History, "Boucher Banjos," Smithsonian National Museum of American History, <http://americanhistory.si.edu> [accessed April 25, 2013].

31. *Ibid.*

affixed to the back tension hoop so as to tighten both heads simultaneously. This orientation can be seen in the Smithsonian's 1845 Boucher, number 094764.

Boucher's banjo's typically had oak rims, sometimes with a faux-rosewood grain painted on. His necks had integral fingerboards and were usually finished in a dark brown or reddish-brown, complimentary to rim. The side of the neck with the chanterelle string is generally cut in a decorative manner. On the instruments with shorter string lengths this manifests as a bump where the tuning peg is mounted followed by a single ogee (S-curve) with its lowest point where the seventh-fret position would be. The 1845 and '46 banjos in the Smithsonian collection are of this sort. On the instruments with longer string lengths it is a bump and then a double ogee pattern effectively doubling as position markers at the seventh, ninth and twelfth-fret positions. The 1847 banjo at the Smithsonian shows the general shape of the double ogee decoration however on later models it is much more defined.

Boucher's necks are generally laminated from three pieces of wood and are quite wide, up to an inch and a half at the nut and two and three-quarters where the neck joins the rim.³² For comparison a modern banjo is closer to one and three-sixteenths at the nut and two inches at the body. The perch pole (the portion of the neck that extends through the rim) is squared with the final portion that extends through the bottom of the rim turned into an off-center dowel that protrudes from the bottom of the banjo to create an anchor point for the tailpiece.

32. Gura and Bollman, 60

The typical head of a Boucher banjo is an elegant reverse S-curve very similar to those used by the guitar makers G. Stauffer and C.F. Martin except as a mirror image. Boucher's heads also have a three-dimensional addition resembling a beehive at the top. Other heads of Boucher's are simply rectangular. The 1847 Boucher at the Smithsonian is unique in having a symmetrical headstock profile with, as Gura and Bollman describe them, "rabbit-ears" on the top.

The 1847 banjo at the Smithsonian also includes an increased number of tension hooks from six on the 1845 and '46 models to fourteen. The chanterelle string is also different in that it enters the side of the neck on the same under the fingerboard rather than being drilled from the back of the neck through the face of the fingerboard. There is a hole through the fingerboard providing access to the shaft of the tapered peg in order to affix the string. The string then rests on a small nut that stands above the surface of the fingerboard. The fingerboards of the two earlier banjos run right up to the tension hoop and a small notch is cut into the face of the heel in contact with the rim in order to provide clearance for the flesh-hoop. The later banjo avoids this extra bit of work fitting the fingerboard portion of the heel by stopping the fingerboard short of the rim where it then scoops downward to where the remainder of the heel sits flush to the rim under the tension and flesh hoops.

In the acknowledgement to Boucher's gift to the Smithsonian it states; "Three Banjos, of the styles made in the years 1845-6-7, by Mr. Boucher, the inventor of tightening banjo-heads by screw fixtures, showing the first method, and two subsequent

improvements.”³³ If this statement is true, Boucher never bothered to patent his invention, or any other of his unique variations on banjo construction.

Boucher banjos are easily identified by a stamp on the heel reading “W. Boucher, Jr. / Baltimore.” While Boucher worked in a traditional method, hand crafting everything, he is still distinguished as the first “production” banjo maker due to the fact that he built standard models of instruments in batches. This is illustrated by the visible Roman numerals etched into his rims and on the backside of the perch pole. Even in the limited number of extant instruments, repeated numbers have been found leading to the conclusion that they are not serial numbers but instead batch markings.³⁴

Another interesting Boucher banjo is in the Crosby Brown Collection of Musical Instruments at the Metropolitan Museum of Art, accession number 89.4.598. This instrument features Boucher’s long-scale double ogee neck but instead of a wooden rim it is affixed to a gourd body. Based on Boucher’s existing instruments, it seems likely that this original Boucher neck was attached to a later gourd body.³⁵

Alongside Boucher, an English emigré by the name of James Ashborn (1816-1876) was the other premier banjo maker in Antebellum America. Ashborn came to New York in the 1830’s, eventually settling near Wolcottville, now part of Torrington, CT sometime in the 1840’s. Due to the extensive hardwood forests and readily available hydropower from the Naugatuck River, this area became well known for its manufacturing

33. Gura and Bollman, from a document in the possession of the descendants of Boucher, photocopy provided to the authors by Laurence Libin, 60.

34. Gura and Bollman 63

35. Metropolitan Museum of Art, “Banjo: William Boucher, Jr.,” Metropolitan Museum of Art, <http://metmuseum.org/Collections/search-the-collections/180012960> [accessed May 1, 2013].

of goods. Ashborn may have found his way there due to an influx of English immigrants promised employment pending completion of the “Wolcottville Brass Company.”³⁶

Sometime after he arrived in Wolcottville, Ashborn decided to start a musical instrument manufacturing facility. In order to make his dream a reality he sought the partnership of a wealthy man who was established in the manufacturing business by the name of Austin Hungerford.³⁷ The two men were quite successful in the relatively short time the business was open and according to record books currently in the possession of the historian Philip Gura they shipped 3,152 guitars between April 1851 and December 1855. They were able to produce such a volume by fully utilizing a hydropower manufacturing facility and division of labor among his staff of about ten workers.³⁸

Though guitars were Ashborn and Hungerfords primary business, they also manufactured some of the finest banjos being produced in the antebellum period and the only banjos produced in a factory setting. The production model allowed Ashborn to maintain consistent quality while keeping costs low, thus making him a successful businessman. He also approached instrument making as a “mechanic,” which is how he listed himself in a census from 1850. This mind-set allowed him to be more innovative in his approaches, breaking from the guild-tradition of being a “craftsmen” and setting out to solve the problems of mass-producing high-quality musical instruments.³⁹

The banjos produced by Ashborn display a sort of refined utilitarianism. They are not overtly decorative however he did use choice materials and exotic woods to give his

36. Gura, *The Crossroads of American History and Literature*. 182-183

37. Gura, 184.

38. Gura and Bollman, 66-67.

39. Gura Bollman, 68.

instruments a natural attractive quality. His rims and necks are typically made of maple with rosewood or ebony employed as fingerboards and headstock veneers. His neck construction is essentially the same as C.F. Martin with a separate peghead being joined to the neck using an attractive method of joinery resulting in a diamond shaped reinforcement on the back of the peghead. The perchpole of Ashborn's banjos is also a nicely turned dowel that passes through an endblock before providing an attachment for the tailpiece. At the heel end of the perch pole, a wedge is inserted through a notch in the perch pole to hold it into place.

Though not patented by Ashborn, a novel approach was taken in anchoring the tension hooks on either end. The attachment to the tension hoop is a bent, flat tab that reaches over top of the hoop providing greater surface area for the tension hooks to bear - down on creating a similar effect to increasing the number of hooks. The other end of the hook is inset into a wooden hoop that is glued to the exterior of the rim. This innovation reduced the weight by eliminating most of the metal parts of the banjo and made the banjo more comfortable to play seated due to the lack of exposed nuts on the back of the rim. The inset hooks were then adjusted with a square key. This method of construction also negated the need for drilling mounting holes for the shoes, possibly improving the structural integrity and acoustical properties of the wooden rim.

Judging by his two filed patents, Ashborn was interested in solving the problem of tuning with violin style friction tuners. His first patent, number 7,279 (see *Appendix*), from April 16, 1850, is for a guitar-head and capo. The problem, as defined by Ashborn is that in a traditional violin-type friction fit tuning peg "is that the hand has not sufficient leverage to overcome the tension of the strings, for the pegs must be fitted very tight to

prevent them from being turned back by the tension of the strings.”⁴⁰ Ashborn goes on to acknowledge the use of patent metal tuning machines but objects to their use due to their expense, liability to rattle and their “injurious effects on the tone of the instrument.”

In Ashborn’s words the solution reads:

The first part of my invention consists in winding the strings on the spindles that pass through and turn in the of the guitar handle wich spindles are of an enlarged diameter below the head, when these are combined with pins of the usual construction by means of cords attached to, and wound around both, the pins being of less diameter than the enlarged part of the spindle with which they are combined or connected thereby increasing the leverage of the pins to overcome the tension of the strings, while at the same time the tendency to turn back the pins by the tension of the strings is greatly reduced. I thus obtain all the advantages of the patent metallic head without its defects.⁴¹

In 1852, Ashborn was granted his second patent, number 9,266 (see *Appendix*), also for a “TUNING-PEG FOR GUITARS,” though the instrument pictured in his drawings is more likely a banjo due to the four strings shown on the headstock.⁴² This patent is a much simpler design and can be seen on many of Ashborn’s existing instruments. It is still a friction peg but it differs from a standard peg in that the diameter of the portion of the shaft that is inserted into the head, as Ashborn calls it, the “journal” is significantly larger than that of the portion extending above the head. The benefit is an increased surface area to provide friction while tuning making for a more refined adjustment and also providing more resistance to the string under tension.⁴³ This simpler design is the one commonly seen on Ashborn banjos.

40. James Ashborn, 1850, Guitar-head and capo tasto, U.S. Patent 7279, issued April 16, 1850.

41. Ashborn, U.S. Patent 7279.

42. James Ashborn, 1852, Tuning-peg for guitars, U.S. Patent 9268, issued September 21, 1852.

43. Ibid.

The Museum of American History at the Smithsonian Institution holds one Ashborn banjo, accession number 67.002. This instrument features the exterior mounted maple flange for tension hook attachment, twelve flat-tab tension hook attached to a metal tension hoop and Ashborn's patented tuning pegs with the larger journal. The neck and rim are stained dark brown but are most likely maple the fingerboard veneer appears to be of rosewood. The chanterelle peg is inserted through a bump in the side of neck protrudes from the face of the fingerboard. Interestingly the neck does not widen, beyond continuing the established taper, after the bump with the chanterelle peg. This setup leaves the chanterelle string very close to the side of the neck. The neck is attached to the rim by means of a wedge inserted through a squared, tapered, perch pole, pressing the rim against the butt of the neck. The other end of the perch pole extends through the rim to create a point of attachment for the tailpiece. It also appears to be reinforced by a glued (?) wedge shaped piece of wood on the inside of the rim. The rosewood-veneered head of the banjo is separate from the neck, glued on in the same manner as Ashborn and C.F. Martin guitars and has a very simple profile with a domed top.⁴⁴

There is another Ashborn banjo in the collection of the Museum of Fine Arts in Boston, accession number 2007.975. This is either a later or higher end example than that of the Smithsonian. This banjo also has a maple neck and rim with a rosewood fingerboard and rosewood veneered head. It again features Ashborn's patented tuning pegs with the larger journal, the chanterelle string is inserted into the side of the neck where a notch is then cut to provide access to the peg for the string to wind around. This

44. Detailed images of this banjo can be found at http://americanhistory.si.edu/collections/search/object/nmah_605683 and also at <http://www.banjodatabase.org/Browse3d.asp>

is identical to Boucher's 1847 banjo in the Smithsonian collection. The rim once again uses an exterior mounted wooden flange and the flat tab tension hooks. The MFA instrument has an increased number of tabs from twelve on the Smithsonian banjo to eighteen. Unfortunately there are not a sufficient number of images available to see the neck attachment but it is highly likely that it is identical to the Smithsonian banjo based on the fact that these were made in a factory setting and were fairly standardized.⁴⁵

One major difference between the Smithsonian banjo and the instrument at the MFA is the addition of frets on the MFA banjo. This shows that the instrument was made in a time of transition for the banjo when players began to play more chords chording virtuosic passages that are much easier to play in tune on the fretted instrument. This change in playing style created what is called the "classic" style of banjo performance and signals the movement of the banjo from the minstrel stage to the parlor. This is also a precursor to the vast number of changes in banjo construction that took place in the second half of the eighteenth century.

The banjos roots can be clearly seen in the playing style and construction methods of the plucked lutes of West Africa. Once these instruments were brought to the West they began to change from their native forms into something new. The round necks became flat, the tied strips around the neck used for tuning were replaced by tuning pegs and eventually the fragile gourd gave way to a sturdier wooden rim with screws able to adjust the tension of the head. These changes were the result of cross-cultural influence, a few innovative minds and new demands from a growing number of performers.

45. Museum of Fine Arts, "Banjo: About 1860, James Ashborn," Museum of Fine Arts, <http://www.mfa.org/collections/object/banjo-510607> [accessed April 29, 2013].

Based on the number of extant instruments, Boucher and Ashborn were the most prolific of the antebellum era first generation of banjo makers. Their works standardized the basic form of the banjo with a round rim and five-string neck and set the precedent for the next generation of innovators. Ashborn especially showed the makers that followed what was possible by utilizing a mechanized manufacturing process and a production-based division of labor.

The makers in the latter half of the nineteenth century, in response to the growing popularity of the instrument in the Victorian era parlor culture, drastically modified its construction and aesthetic qualities once again to appeal to a new clientele. This phase of banjo construction is illustrated by the work of H.C. Dobson, Fairbanks, Cole, S.S. Stewart and Bacon & Day, among others, who created highly decorative works that are essentially modern banjos.

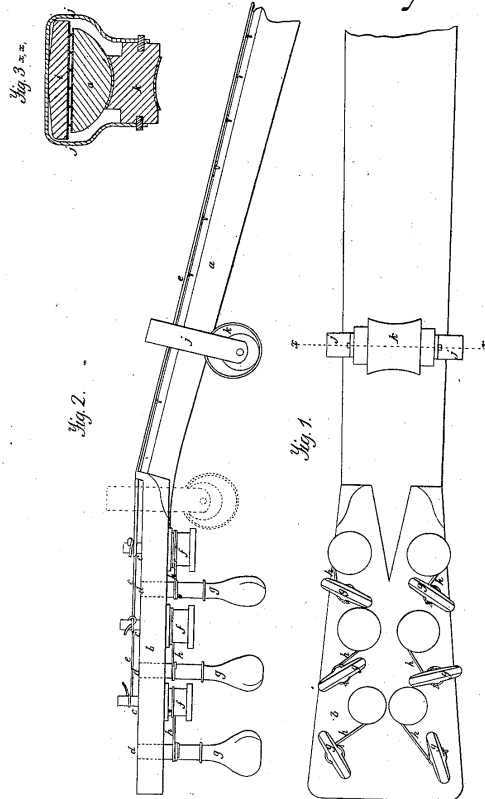
Appendix

J. Ashborn,

Guitar Head,

N^o 7,279.

Patented Apr. 16, 1850.



THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES ASHBORN, OF WALCOTTVILLE, CONNECTICUT.

GUITAR-HEAD AND CAPO TASTO.

Specification of Letters Patent No. 7,279, dated April 16, 1850.

To all whom it may concern:

Be it known that I, JAMES ASHBORN, of Walcottville, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in the Guitar-Head and Capo Tasto, and that the following is a full, clear, and exact description of my invention, of the principle or character which distinguishes it from all other things before known, and of the method of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a bottom view of a guitar head and handle on my improved plan, Fig. 2 a side elevation thereof and Fig. 3 a cross section taken at the line *xx* of Fig. 1.

The same letters indicate like parts in all the figures.

In the old-fashioned guitar the strings are wound directly onto the ends of what are called pegs, the spindles of which are fitted to, and turn in holes made in the head. The defect of this arrangement is that the hand has not sufficient leverage to overcome the tension of the strings, for the pegs must be fitted very tight to prevent them from being turned back by the tension of the strings. Hence it follows that the pegs are not sensitive, and that the accurate tuning of the instrument is a matter of great difficulty. To avoid these defects, what is known as the patent metal head was invented and has been introduced into almost universal use. But this improvement, while it gives the performer complete control of the strings by the leverage of the keys is seriously objectionable on account of its injurious effects on the tone of the instrument. The keys and their appendages, as well as their connection with the handle, must be made of metal, and the weight of all these pieces of metal injuriously affects the vibrations of the instrument. In addition to this the pieces are very liable to rattle and thereby to vitiate the intonation. Added to these objections is that of the great cost of a guitar head thus constructed.

The use of the capo tasto, (the clamp used on the handle of a guitar to determine the vibrating length of the strings to set the instrument for playing in difficult keys), as heretofore made, is attended with great difficulty, as is well known to all guitarists, in fact, so much so that many performers have abandoned the use of it.

The object of my invention is to remedy the defects above pointed out in the guitar head and the capo tasto and to this end

The first part of my invention consists in winding the strings on spindles that pass through and turn in the head of the guitar handle which spindles are of an enlarged diameter below the head, when these are combined with pins of the usual construction by means of cords attached to, and wound around both, the pins being of less diameter than the enlarged part of the spindles with which they are combined or connected thereby increasing the leverage of the pins to overcome the tension of the strings, while at the same time the tendency to turn back the pins by the tension of the strings is greatly reduced. I thus obtain all the advantages of the patent metallic head without its defects. And the second part of my invention consists in combining with the capo tasto, or plate for pressing the strings onto any particular fret of the handle, a metal or other strap attached thereto and passing down on each side of the handle, and an eccentric roller journaled to the said strap and acting against the under surface of the handle, so that the said plate may, with one hand only, be drawn down onto the strings, and adjusted or liberated therefrom by simply turning the said roller, the whole thing being put on and pushed back onto the head beyond the last fret where it does not interfere with the vibration of the strings.

In the accompanying drawings (*a*) represents the usual handle for a guitar with its frets, and (*b*) the head in which there are twelve holes (*c*) and (*d*) six of each. To the six holes (*c*) are fitted six spindles which project sufficiently above the upper surface of the head to admit of attaching and winding the strings (*e*) thereon. These spindles pass down below the head and are there made of an enlarged diameter as at (*f*) with small flanches at both ends. The diameter of the enlarged part should be from three to four times the diameter of the spindle on which the strings are wound.

To the six holes (*d*) are fitted pegs (*g*) of the usual kind used in old fashioned guitars except that they do not project above the guitar head. To each of these pegs is attached one end of a piece of catgut (*h*) which winds around it and then around the periphery of the enlarged part

(*f*) of one of the spindles to which the other end of the said piece of catgut is attached, so that by turning the peg the piece of catgut is wound onto the peg which turns the spindle to tighten or loosen the strings. Each peg is connected and combined with one spindle in the manner just above described. By this arrangement all the objections to the use of the patent metallic head are avoided, while the advantages which it has of controlling the strings and preventing them from slipping are retained at much less cost.

The capo tasto plate (*i*) lined, as is usual with buckskin, is attached to a strap of metal (*j*) which only touches it about the middle of its length. This strap of metal is bent down on each side of the handle, and the ends pierced each with a hole to receive the journals of an eccentric roller (*k*), the periphery of which is turned down in the middle to correspond with the form of the underside of the handle; the periphery of the said roller when it acts on the handle being covered with buckskin or other kind of leather to prevent the handle from being injured. When the said roller is in the position represented in the drawings, the capo tasto or pressure plate is drawn

down tight onto the strings, holding them forcibly onto the edge of one of the frets on the handle; but when it is turned half way round, that is, when its shortest radius is toward the handle, then the plate is not drawn down onto the strings and the whole apparatus can be pushed back onto the head as shown by dotted lines.

What I claim as my invention and desire to secure by Letters Patent is—

1. The method, substantially as herein described, of tuning guitars by winding the strings each on a spindle, having a part below the guitar head of an enlarged diameter, connected and combined with a peg of the usual construction, by means of a cord, in the manner and for the purpose, substantially as described.

2. I also claim combining an eccentric roller with a capo tasto for moving and holding it down onto any desired part of a guitar handle, by means of a metal strap made to embrace the handle and capo tasto plate and attached thereto, substantially in the manner and for the purpose specified.

JAMES ASHBORN.

Witnesses:

A. G. BRADFORD,
ALBERT BRADLEY.

J. Ashborn,

Guitar Key,

No. 9,268,

Patented Sept. 21, 1852.

Fig. 1.

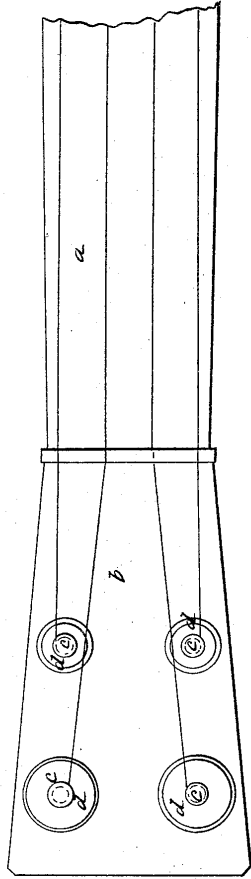
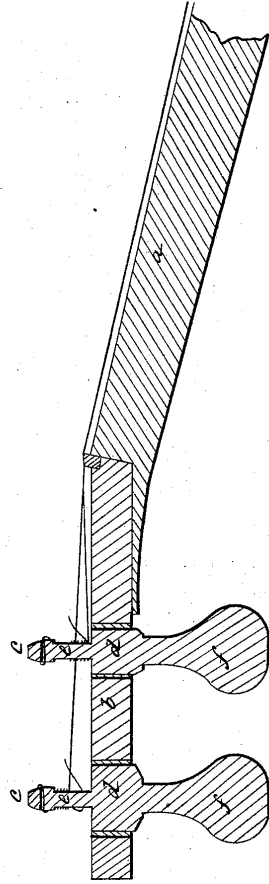


Fig. 2.



UNITED STATES PATENT OFFICE.

JAMES ASHBORN, OF WOLCOTVILLE, CONNECTICUT.

TUNING-PEG FOR GUITARS.

Specification of Letters Patent No. 9,268, dated September 21, 1852.

To all whom it may concern:

Be it known that I, J. ASHBORN, of Wolcotteville, Connecticut, have invented a certain new and useful Improvement in Tuning
5 Pegs or Keys for Guitars, Violins, and other Stringed Instruments, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan; and Fig. 2 a section in
10 the plane of the axis of the keys.

The same letters indicate like parts in the two figures.

The modes heretofore and now universally employed for tuning guitars and violins are
15 the wooden pegs and the metallic keys. The former of these are defective for the reason that they are too apt to slip under the tension of the string, and if they be wedged in too hard then it is difficult to turn them, the
20 fingers not having sufficient leverage to overcome the tension of the strings and the friction of the surfaces. And as it is a well known fact that in such cases the pegs can only be turned by jumps, as it may be
25 termed, accuracy in the tuning becomes exceedingly difficult, particularly on the bass strings where a very slight variation in the tension produces a marked difference, in the
30 tone. And the latter of these modes is objectionable on account of the weight, expense and the injurious effects on the tone of the instrument, as it is well known that the presence of metal connected with any part
35 of the instrument affects its vibrations, and besides this the slightest defect in the construction or wear will occasion a rattling sound which is very offensive to the ear.

Notwithstanding the metal key avoids entirely the difficulty of turning presented by
40 the wooden peg, yet the other defects are so great, that for all good instruments the wooden peg is preferred by all good musicians.

The object of my invention is to combine
45 all the advantages of both modes, and to this

end the nature of my invention consists in making that part of the wooden peg which is fitted to and turns in the handle of the instrument, and which may be called the journal, of much greater diameter than the
50 barrel or part on which the string is coiled or wound up, and thereby give such leverage to the surface which makes friction and which resists the tension of the spring as effectually to hold the string without the
55 necessity of wedging or driving in the peg too hard, and at the same time so enlarge the radius that if it be turned by jumps or jerks the effect will be so much reduced on the string as greatly to facilitate the accu-
60 racy of tuning.

In the accompanying drawings *a* represents the handle of a guitar, *b*, the head, and *c* the pegs fitted thereto. These pegs are in all particulars like the ordinary pegs,
65 except that the part *d*, (which may be called the journal) fitted to the hole in the head is of a much greater diameter than the barrel part *e*, on which the string is coiled. The handle part *f*, may be made in the usual or
70 any form desired, and as the surface of the journal part is much increased the holes in the head can be bushed with ivory or other hard substance which will be more durable.

When applied to violins, the pegs on this improved plan need not pass through both
75 cheeks as heretofore, it can be done if desired, but they will be found to hold sufficiently by passing through one side only.

What I claim as my invention and desire
80 to secure by Letters Patent, is—

Making the tuning pegs of guitars and other like stringed instruments, with the journal part of much greater diameter than the barrel on which the string is coiled, sub-
85 stantially as and for the purpose specified.

JAMES ASHBORN.

Witnesses:

GEO. D. WADHAMS,
HENRY I. BARLEDEN.

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