

# The Guitarpa

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Gregg Miner



***Imagine finding these photos in your Inbox one day...***

It was a random morning in September 2023 when I opened an email to discover these two attached incredible images. I had received them from a colleague who had been asked to appraise the instrument for a prominent London auction house, the photos having been taken by its owner in their home in Madrid, Spain.

The fabulous instrument is of course the fabled **Guitarpa** from London's 1851 Great Exhibition, which I only learned *still existed* in 2009, reporting the news back in my 2011 blog "[The Guitarpa Lives!](#)".



Stunned and anxious to learn more, it was a full year until any further news of it appeared. That was when I learned that *another* auction house in England - Gardiner Houlgate – had gotten the listing! Their director Jamie South had kindly alerted me to the auction, having seen my 2011 blog. What next ensued was a tense week for all as we tried to determine if there was, in fact, a *second* Guitarpa! During this time, I was playing three-way email tag with Jamie and the first appraiser, as even though we all know each other, this high-end stuff gets cagey with all its confidentiality. We soon confirmed that there was just the one set of photographs from the same source, and that there was just the one instrument.



As most everyone now knows, the instrument was successfully auctioned off on September 6<sup>th</sup>, 2024, going for an impressive 40,000 pounds. Adding in the premium and exchange rate, never mind shipping, I wasn't about to take out a new loan! Clearly, though, there was more than one bidder, possibly several (there was even one in the room, though I haven't learned their identity). Did it find a good home? I'll let you know when I know (OK, I know, but it's confidential for now). Suffice it to say that I should one day get to see it myself, and until then, hope to have some of our last technical questions about it answered.

Yes, there are still questions remaining, despite the wealth of new information and evidence at hand. These include three new sources:

- Excellent photos from Gardiner-Houlgate
- The amazing coincidence that my friend and harp guitarist Jon Pickard (one of the few who plays instruments with both sub-basses and super-trebles as the Guitarpa itself has) lives nearby the auction house! For his own curiosity, but also on our community's behalf, he went over and was allowed to see it. Indeed, to hold it!

- Lastly, a highly detailed biographical article on Gallegos and his instrument that I only recently discovered on the Academia.edu web site. Written for the French publication CNRS ÉDITIONS' *Écoles et traditions régionales*, it is titled ***La « Guitarpa » de José Gallegos et la « poliarmonica » de Daniel Dobranich: Deux inventions pour la guitare au XIX siècle.*** Written by Cristina Bordas Ibáñez of the Musicology Department of the *Universidad Complutense de Madrid*, it provides likely all the history on Gallegos and the instrument that is known today. Her description of the instrument provides a few new details, yet still leaves unresolved the questions that still vex Jon and I. (P.S. The second instrument in her article warrants a blog of its own!)

Cut to last month at the auction house: With only short minutes to shoot some quick video, Jon (seen below) *did* so, and with some funding from the Harp Guitar Foundation (supported by readers like you), he's created a wonderful video, sharing his thoughts and findings "up close and personal"! He and I worked on some of the details back and forth via the photos; nevertheless, a few fascinating mysteries remain, which I'll address below.



There are two ways (actually three) to explore our presentation of this remarkable and wholly unique and one-of-a-kind instrument: You can first read my article (which consists largely of my translation of Ibáñez' article), or you can first watch Jon's video, then come back and study the photos here, or you can even first watch the "teaser" video created by Gardiner Houlgate's Jamie South himself. The videos can be accessed by clicking the images above.

## ***The Guitarpa***

*My short few paragraphs in my 2011 blog were not too far off the mark, but now we have much more detail, thanks to the work of Cristina Bordas Ibáñez. For the sake of expediency, I'm choosing to focus on my translation of her own article, including its rare new images. I'll include my own italicized comments and additional observations as warranted. I suspect that in 2005 the instrument was in the same private location I learned of, as Ibáñez states, "Currently kept in Madrid in a private collection, it is well documented."*

*From CNRS ÉDITIONS' Écoles et traditions régionales, 2005*

***La « guitarpa » de José Gallegos et la « poliarmónica » de Daniel Dobranich: Deux inventions pour la guitare au XIX<sup>e</sup> siècle***

*By Cristina Bordas Ibáñez*

Little biographical information is available about José Gallegos. The documents we have present him as the author of several mechanical inventions, including musical instruments which he made known in various European countries and in the United States. (GM: *Indeed, Ibáñez says elsewhere that Gallegos and Dobranich [her other subject] "do not seem to be associated with guitar-making workshops. They present themselves as "inventors" interested in the progress of the musical arts and not as musicians or instrument makers."*)

He settled in Málaga, probably his hometown, as a piano maker, and in 1848 received a gold medal from the Economic Society of Friends of the Country. He must have set up his workshop in the early 1840s or a little earlier because, according to an anonymous 1865 article, he began working on the guitarpa around 1845. (GM: *Ibáñez will reference this same anonymous 1865 article a few more times below.*)

Gallegos had designed this instrument for the Duke of Montpensier, who was then residing in Seville and wanted to offer a unique instrument to his wife. The preserved guitarpa bears the date 1849 and everything suggests that it is the instrument that Gallegos made for the duke. It is perhaps the only one he managed to build and which he subsequently presented in Madrid, London, Havana, before returning to Spain.

*GM: I would say that we can be confident at this point that there was never another built.*

In March 1850, Gallegos wrote to the Duke (at right) requesting permission to deliver the guitarpa himself, but received no response. He then traveled to Madrid to present his invention to Queen Isabel II who, according to the maker himself, complimented him on his work. In Madrid, he obtained the support of important politicians, with whose support he traveled first to Paris and then to London. From then on, the guitarpa appeared in his professional activities as a 'passport' with which he introduced himself into various national and international circles; this brought him prestige and recognition for the instrument and his other inventions.

He likely arrived in London before January 1851, where he wrote some notes on the technical aspects of the guitarpa, including some sketches and details on English measurements. He presented the instrument at the Universal Expo and obtained a medal. He appears to have performed on two occasions for Queen Victoria and given recitals. He then left for New York to improve his skills in mechanical arts, as an accompanist for the famous singer Adelina Patti.

*GM: Having previously seen reference to him touring in New York with the Guitarpa, I assume he accompanied the singer on his instrument.*

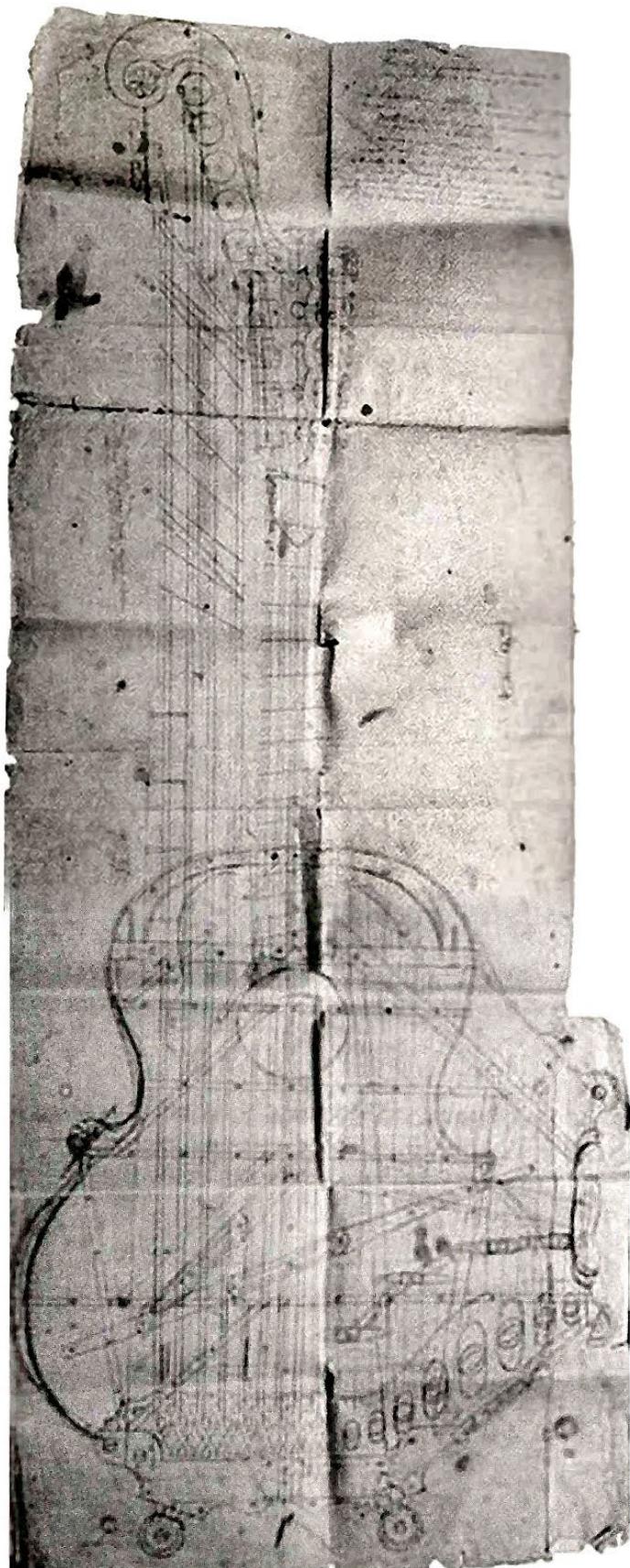


Antonio de Orleans,  
Duque de Montpensier, 1851

In the Garrido Archives we find the technical drawing (at right) which differs in several aspects from the preserved Guitarpa. In this drawing, the conventional guitar has five double courses and one single course. The peghead of the long neck is in the shape of a flower and not a scroll. The four double bass strings are tuned F, G, C, D. On the reverse of the drawing, we find pencil annotations concerning English measurements (yards and inches) and among other phrases: <Original sketch of my old Guitarpa>. This seems to indicate that once in London, Gallegos wrote these few notes from memory.

Gallegos lived in Havana between 1853 and 1857 and opened a piano workshop there in 1853, at 109 Cathedral Square and 6 Aguiar Street, then in 1856 at 105 San Miguel Street. There he also built presses for packing sugar and mechanical devices which he installed on several farms.

In 1853, perhaps to obtain money to settle in Havana, he organized a public raffle for the guitarpa 'with its stand, its box and an exclusive musical method to learn to play it with great ease' which was to be drawn in the Royal Lottery of that year. Advertisements published to promote the raffle feature the same engraving of the guitarpa that appears in the catalog of the London Exhibition of 1851.





The print advertisement for the raffle in Havana. 1853, Garrido Archives

According to the 1865 article, he also built the Lottery balloons and obtained 5,000 duros (25,000 pesetas) with the raffle, because he was lucky enough to receive the prize himself thanks to a note that had been returned to him; thus, the guitarpa remained in his possession.

It is not known when he returned to Spain; but in 1860, he applied in Madrid for a patent for the construction of mechanical (orthopedic) hands and feet. The mechanical hand which, it seems, reproduced all the movements and articulations of the human hand, was one of his most valued inventions. In 1861, he applied for another patent for a system of rotation axes on rotating cylinders which reduced friction. In 1862, he was recognized by the Madrid Economic Society, which wrote a very favorable report on his inventions. The Society then proposed that he be given the title of associate member and the gold medal, and recommended that the Government purchase artificial hands for civil and military hospitals. In turn, Gallegos proposed to the Madrid Economic Society the idea to open a workshop and teach young people how to make mechanical hands. On March 23 of the same year, he obtained an audience with Queen Isabel II for this purpose, the results of which are unknown.

This information indicates that Gallegos had lived in Madrid since the early 1860s, and that he worked actively to gain recognition for his inventions, which also included some new musical instruments. According to the 1865 article, his workshop was located at 5 San Cosme Street in Madrid. In 1864, the Industrial and Merchant Center created an "artistic-mechanical-industrial construction workshop", and appointed Gallegos as its director. In this workshop, "Gallegos intends to build several musical instruments, in addition to other mechanisms of his invention."

*GM: These four new musical inventions listed below are fascinating. They tell us that Gallegos did hope to build more guitarpas. The invention for the second “regular guitar” would be interesting to see: mechanically combining the low E and A strings? The last invention sounds like a simple mechanical finger exercising device, but the first: **One single piano for 8 pianists?!** Why not just line up 8 uprights?*

- Orchestral piano for playing with 8 and 16 hands: a new piano so that up to eight pianists can play at the same time, with 1,048 strings
- Harmonic guitar and renovated regular guitar. The first is the guitarpa, the second improves the structure of an ordinary guitar by giving it the possibility of having “the two bass strings mechanically combined”
- Gymnastics equipment to help play the piano, that is to say to work the finger muscles.

Other inventions of Gallegos are known to us as mechanical cars that use the force of gravity and the movement of the body of the man who drives it; apparatus for calculating levels for engineering work; and “an underwater thruster”, the latter having been patented in Brussels in 1867.

*GM: Ibáñez now goes on to describe the guitarpa. Unfortunately, her own specifics still do not answer some of our open questions, which I posed to her. The last we spoke by email she was hoping to locate her nearly twenty-year-old notes to try to jog her memory. I'll now incorporate photos from the Gardiner-Hougate auction.*







The Gallegos guitarpa is a hybrid composed of a conventional guitar with six courses of strings (four singles and two doubles), three courses of independent, longer strings attached to a second pegboard (one single and two doubles), a register of twenty-six metal strings stretched on the soundboard imitating the chromatic harp, with an independent mechanism. The instrument is placed on an articulated support, inspired by Dionisio Aguado's *tripodison*, but with four legs and presenting more possibilities for articulation.



GM: Note that Ibáñez saw the same stringing configuration in 2005 (above left) that was present in the 2024 auction (above right); only single strings in the sub-basses. The nut and bridge are what tell us how it was once strung.

The body has an almost rectangular shape (46 cm in total length; 38 cm in maximum width in the lower part; 25 cm in minimum width in the uppermost part; 10.3 cm in thickness in the lower part; 9.5 cm thick in the upper part). The wood is guaiac with tortoiseshell, mother-of-pearl, silver and gold ornaments. On the central rosette (8.5 cm in diameter), it bears the postman's mark: "José Gallegos" and at the lower extremity, in silver relief "MALAGA / 1849."

GM: I discovered that guaiac wood is from the striped heartwood of a small tree called Palo Santo (*bulnesia sarmienti*).





On the guitar portion, the central neck has a fingerboard with seventeen frets which are arranged up to the central rosette. It has six courses of strings, including the two double basses (8 strings in total). The two strings of the low E are in octaves and those of the low B sound in unison.

The vibrating length is 65 cm.

The peghead is flat, decorated with a golden crown and an engraved golden monogram with initials. The pegs have gold ornaments inlaid into the wood.

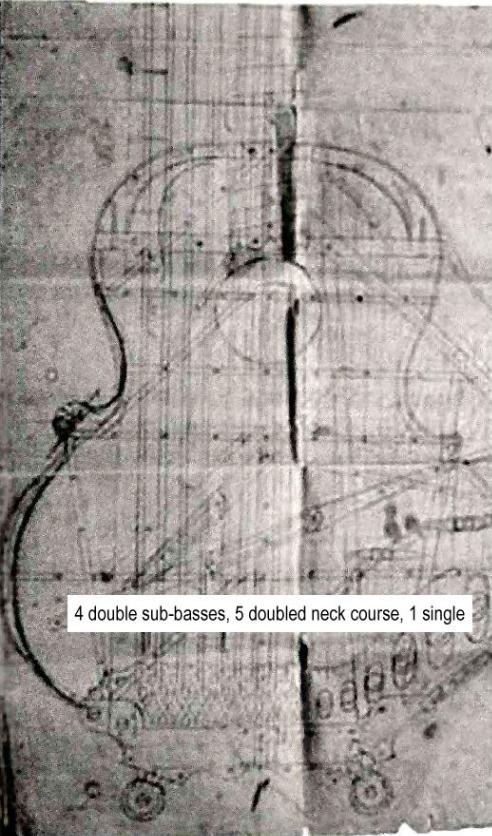
*GM: I don't know yet how Ibáñez determined that the low E string was tuned in octaves, when what we see are two similar (low) gauges. Nor have I any idea what the "unison low B" string is! Though the instrument looks small (for the Duke's wife, after all), the scale length is actually a fairly hefty standard 25.59 inches.*

The bass neck has five silver-wound strings, the longest in D (vibrating length 90 cm). Of these additional strings, two are double: A and D (vibrating length of 71.8 cm). The neck has fifteen frets with small individual metal lugs for each string; each fret is engraved with the name of the corresponding note (for example for the longest string, the low D has frets with the inscriptions "#b mi fa, #b sol #b a #b si do#"). The instrument has four pegs for tuning the shorter strings (...)

*GM: Ibáñez omitted mentioning the two unemployed "dummy" tuners on the sub-bass head, which Jon had pointed out in his video. Did Gallegos originally build this for three double courses of the same length (as the back of the head shows), then perhaps change his mind after hearing his low D string, opting then for the overlaid extension? (I show this below.) Or did he plan this all along and simply add dummy tuners for "symmetry"?*

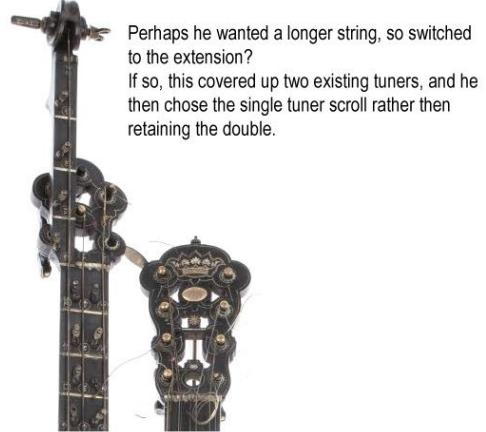


*Or, looking at it another way, considering also his original drawing configuration:*



Did he originally intend to do 3 double sub-basses instead of the 4 in the drawing? (all of the same length).

For the neck he retained two double low courses, the remainder going to single.



*GM: And then there are the “individual metal lugs” mentioned on the previous page, Ibáñez did not explain their purpose or operation. This one stymied Jon and I. Did Gallegos string this with double courses, only then to install his “sharpening lugs,” deciding then to simplify them by switch to single subbasses? See this detail at right:*

*To clarify: the low D string has four half-step sharpening levers at which point it meets the nut of the next two strings. At this point, all **three** strings have their chromatic note options marked. Yet there are only **two** sharpening lever sets continuing. With these three strings tuned D-A-D, what was Gallegos imagining?*

THREE strings/courses, but only TWO sharpening devices. Why? Not enough room on the neck?

Each device can be turned to either side.

Does ball knob “fret” solely by touching the side of one string, or can it slip under to fret the two strings in a course?



Ibáñez continued her description of the sub-bass pegs:

(...) and at the end two symmetrical metal pegs: one for tuning the longest string (re), the other, on the opposite side, to hold the string and maintain accuracy.

GM: Here, she is describing the unusual custom tuner for the sole low sub-bass string.

The peghead ends in a volute shape, as for bowed instruments (This is perhaps why, in the catalog of the London Universal Exhibition of 1851, this pegboard is described as that of a cello).

GM: This always bugged me. Who originally said “combination of ‘cello” and why? Gallegos, himself? Surely, he would have had a say in the matter, unless the phrase came solely from the London Exhibition staff? Even his original drawing idea with four sub-bass courses did not follow cello tuning. So, perhaps the above “misdirection” of the volute as the reason is a good guess on Ibáñez’ part. For the record, here are the London Exhibition entries, written by persons unknown:



#### Entry under “Plucked and Bowed Instruments”

GALLEGÓS, (D. JOSÉ), *Malaga*—  
Inventor and Manufacturer.  
Spain, No. 272.

Guitar-harp: a newly-invented instrument, which comprises the harp, guitar, and violincello. [Pl. 14.]  
*Art-Journal Illustrated Catalogue*, p. 97.

A musical instrument called a Guitarpa occupies this column: it is invented and constructed by Don Jose Gallegos, of Malaga. The tone of this ingenious piece of mechanism comprises that of the harp, guitar, and violoncello; it has thirty-five strings, twenty-six of which and twenty-one pegs act upon the harp, producing in their full extent the diatonic and chromatic scales: six strings belong to the part of the Spanish guitar, while the violoncello part has three silver strings and eighteen pegs. The pedestal by which it is supported is so constructed that the instrument may be either elevated or depressed at pleasure.

#### Under “Report of the Jury Class: Harps”

A beautiful and very ingenious specimen of the *harp guitar* (called a “guittarra harpa”) has also been exhibited, and for which the Jury have awarded a Prize Medal to the inventor, J. GALLEGOS (Spain).



Top right: Guitarpa by Don Jose Gallegos. *The Art-Journal Illustrated Catalogue*, p. 97.

The chromatic harp part has twenty-six thin metal strings that cross, as in the case of baroque harps, following the order of the alternating keys of the keyboard. In addition, diatonic strings have movable hooks which allow the sound of the string to be raised between one and two semitones, allowing total chromatism. The extension, of two octaves, goes from low G to high A, a total of two octaves and two notes (G# and high A). These strings are fixed on a chiseled silver frame placed on the lower part of the body.

*GM: This is another crucial section, which Jon Pickard deduced differently in his brief examination. Certainly, Ibáñez would have had more time. Did she manipulate these devices? Jon's belief that the mechanisms simultaneously sharpened **both** a natural and its semitone above makes no real musical sense. But then, neither does Ibáñez' statement that the diatonic strings can be raised either **one or two** semitones, "allowing total chromatism." What does a **two step increase** gain? Wouldn't one step already be fully chromatic? (which, incidentally, the two banks of strings already are)? Perhaps she is thinking in music notation and strict key signatures?*

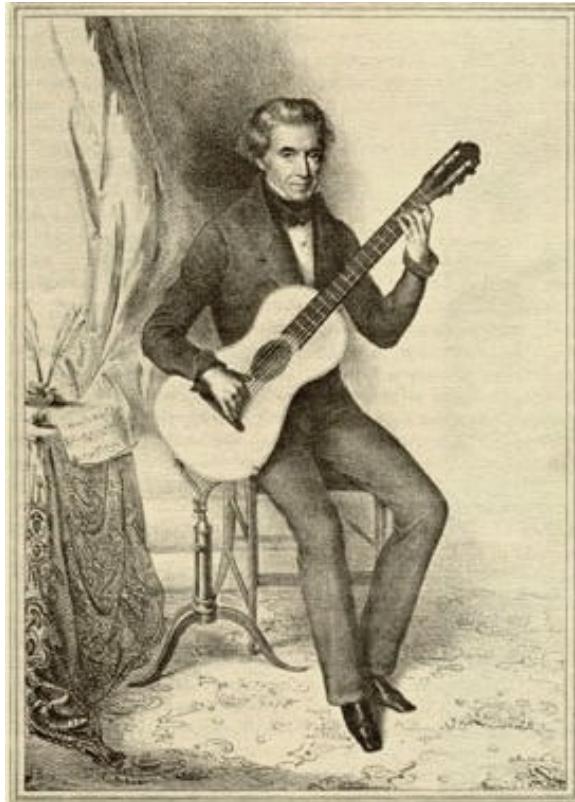
*Hopefully, this "super-treble" string bank and its complicated mechanism (including the mystery "N" buttons) can be better deciphered by the new owner.*

*Note that Ibáñez (like everyone) refers to these as "harp" strings. As they are part of a "harp guitar," that makes sense, but that organological term was barely created (by myself) by 2005. Did no one ever consider these "zither" strings?*



The instrument rests on a four-legged hinged stand, with a central axis and metal frame supporting the instrument. The feet can fold and the axis allows you to raise or lower the height of the instrument, and to move it in different directions. It presents very well-thought-out details to adapt the guitar to the performer's body. It is also made of guaiac with gilded bronze ornaments.

There is no doubt that Gallegos was inspired by Aguado's tripodison by claiming to improve it, as he himself said in the 1850 announcement.



Above: Aguado with his tripodison, or Tripodium.

The further history of the guitarpa remains unknown to us, as does that of the family and heirs of Gallegos about whom we have no information. In 1967, the instrument was presented in Madrid in an exhibition organized by the Sociedad Espanola de Amigos del Arte and in 2001, it was exhibited again in Madrid.

*GM: Interesting! As far as I know, no one (who would have remarked on it) has been aware of these public appearances in Spain in either 1967 or 2005. It wasn't until 2009 that I learned from a colleague that it had, in fact, survived: this from a sole image on this album cover below.*



*How did the instrument end up a century and a half later in private hands in Madrid? (Apparently, it was at different time in a music store or a private residence.)*

*As I said earlier, it was finally last year when I first received photos of the instrument that was being newly shopped around.*

*I do know that it apparently took over a dozen years for the family members of the Madrid music store/and or instrument to reach a legal agreement as to the true ownership of the historical instrument. Clearly, there was some sort of infighting going on, and before it could be offered for sale, a legal definitive owner had to be established. As I remember one of the owners originally asking 100,000 Euros, this was obviously something worth fighting over! I'm glad it was finally settled. As Gardiner Houlgate stated in their auction listing, the instrument came with "a legal document indicating that the vendor has good title."*

## ***A final note on the instrument's name and possible inspiration***

*As we see above, English speakers have trouble with hybrid instruments! Gallegos or someone who saw his original instrument sometime before the exhibition “christened” it the “Guitarpa,” which is of course a portmanteau term combining the words “arpa” and “guitarra” (or “harp” and “guitar”). In the 1851 Exhibition documentation we find that term, along with “Guitar-harp” (a reasonable translation), “guittara harpa” (a re-separation of the portmanteau term?), and “harp guitar” (from the jury prize section). As this text is from the 1986 reprint (with new analysis and text), I’m unclear as to what the original 1851 exhibition book stated, as “harp guitar” had not yet been defined, the term essentially then unknown.*

*Regardless of terminology, it seems that the Exhibition authors – or, indeed, Gallegos himself – thought of his invention as a combination of “harp, guitar, and violoncello.” Let’s examine:*

*The guitar part is easy, as it has/had an 8-string, six-course neck.*

*The harp part is unusual, since, as I’ve stated many times within my web site, these are technically not harp strings, but zither strings. In Gallegos’ time, we didn’t have our hundreds of “fretless zithers,” but he might have known these strings from a psaltery (salterio); or he truly was inspired by the harp and decided to mount them on the same plane as the guitar (as a bandura has them, or as future super-treble harp guitars would include them).*

*As for the cello, this is odd, as I alluded to above, since it has only three strings (and the four courses in Gallegos’ original drawing were not tuned as a cello). Ibáñez conjectured that perhaps it was simply the low string peghead’s “violin scroll” that confused observers – though it would seem odd that Gallegos would not have corrected these observers if he had not agreed. Perhaps Gallegos simply had nothing else to go on for his novel invention?*

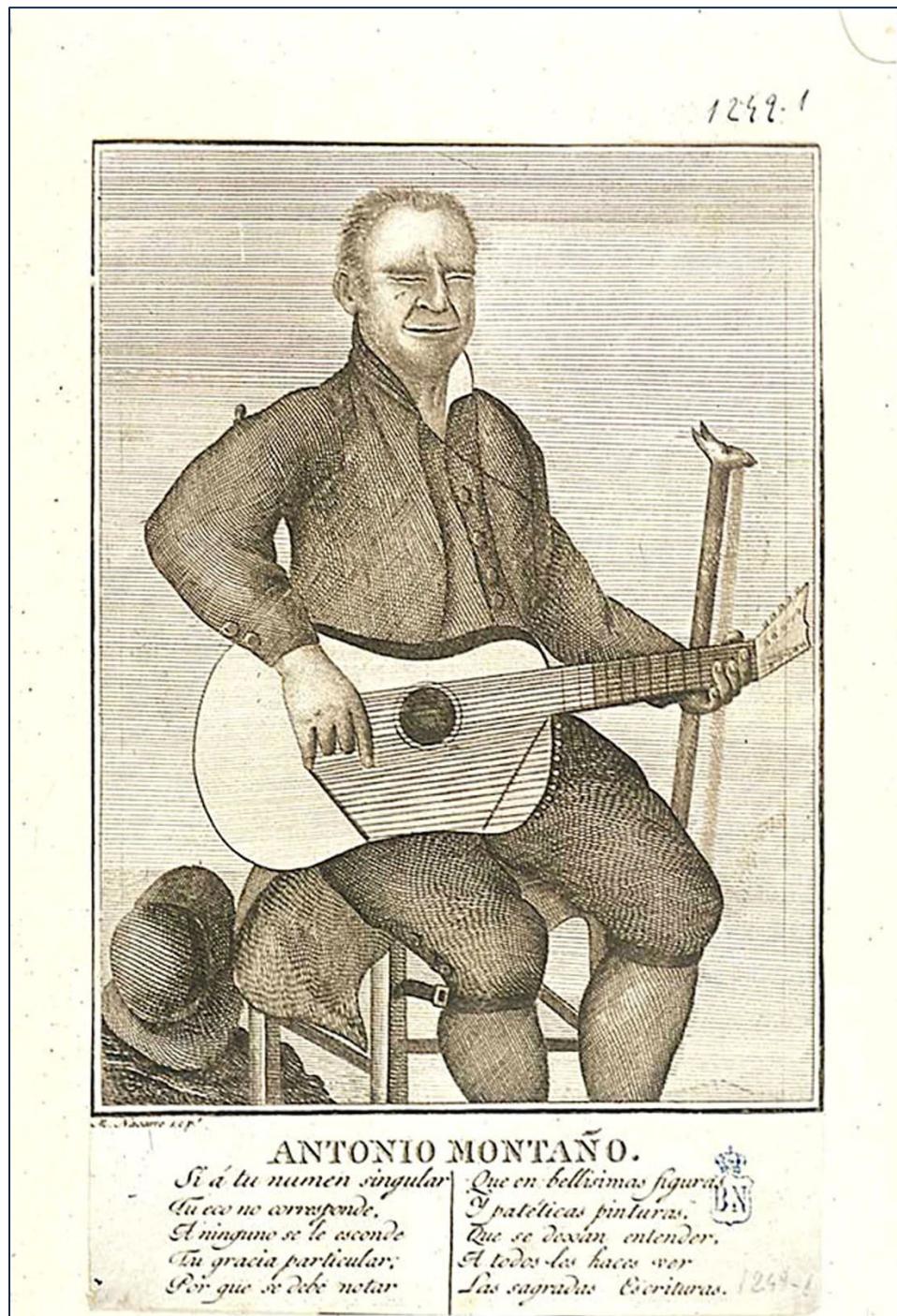
*Indeed, we are left to wonder, did Gallegos invent his own harp guitar totally out of the blue? Organologists are always looking for influences and linear threads, but we don’t always find them. I have certainly found instances where a harp guitar form was clearly “invented” in a vacuum or “out of the blue.”*

*We have at least one well-known earlier Spanish instrument that incorporated treble “harp” strings along with a standard guitar: the wonderful c.1790 Rafael Vallejo instrument, allegedly built for King Charles IV of Spain, shown at right.*



Vallejo's provenance is given as Granada, a province that includes Málaga, the original hometown of Gallegos. Could Gallegos have been aware of it some five or six decades later?

A second instrument – either Spanish or Portuguese – also appeared about the same time:



Antonio Montaño was a Spanish, or Portuguese blind singer and player of the "guitarra-tiorba," author of songs and poeta repentista (improvisational poet), who died in 1816. Where did **his** instrument come from?!

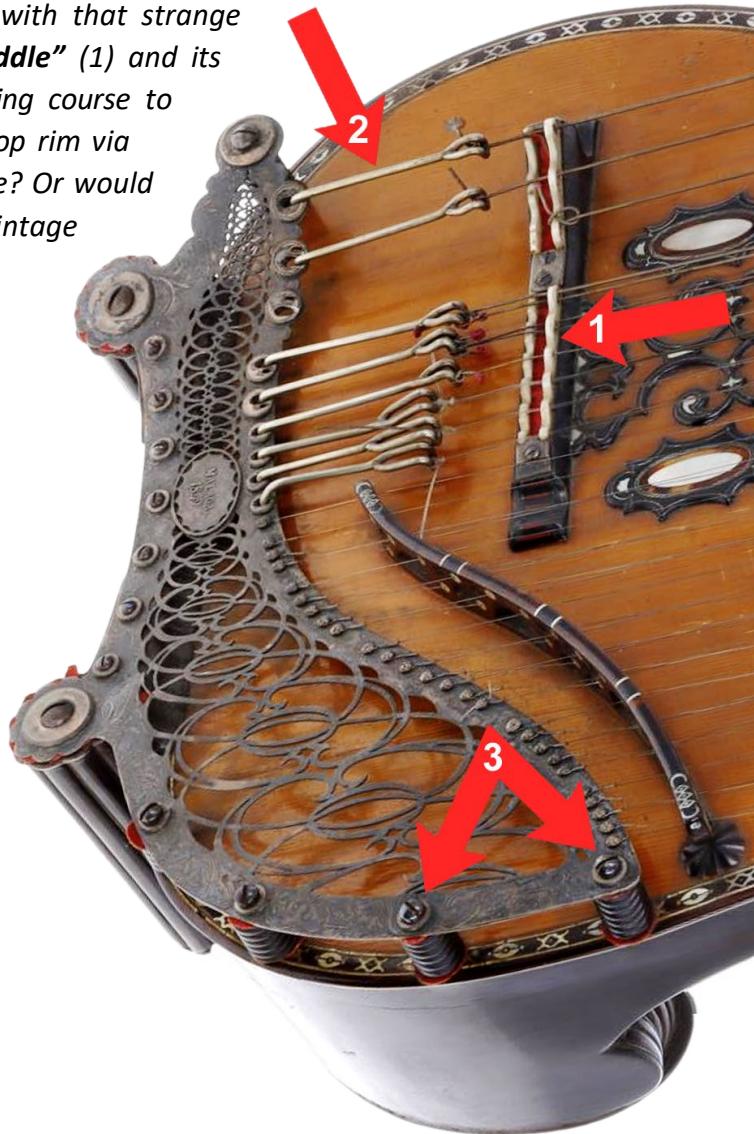
## Epilogue:

*This has yet to written. Many, including Jon Pickard, thought the instrument could (and should) be restored. Indeed, other than a few missing pieces of hardware, it seems almost ready to go!*

*Personally, I would be anxious to hear the tone, with that strange "tailpiece system." With that **double "through saddle"** (1) and its **long metal rods** (2) connecting each individual string course to another large metal array that is attached to the top rim via **individual springs** (3), would it destroy all resonance? Or would it be like my Knutsen Symphony harp guitar with its vintage added metal tailpiece...could it similarly act like a "reverse tension bridge" and make this thing sing?!*

*Wouldn't that be something to see...*

*and hear!*



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Images & Acknowledgments: Jamie South/Gardiner-Houlgate, Jon Pickard, James Westbrook, Cristina Bordas Ibáñez

About The Author: Creator and Editor of Harpguitars.net Gregg Miner has been fascinated by harp guitars since the early 1970s. He purchased his first instrument (a 1916 red sunburst Gibson) in 1983, then fell in love with the harp guitars of Chris Knutsen when he found his first one in 1988. He collects harp guitars, researches harp guitars, writes about harp guitars, plays harp guitars, produces harp guitar CDs, buys and sells harp guitars, and runs Harpguitars.net, Harp Guitar Music and the Harp Guitar Foundation. You would think that by now he would be sick of harp guitars, but he is not.