W. J. Dyer & Bro.

Symphony Harp Mandolins

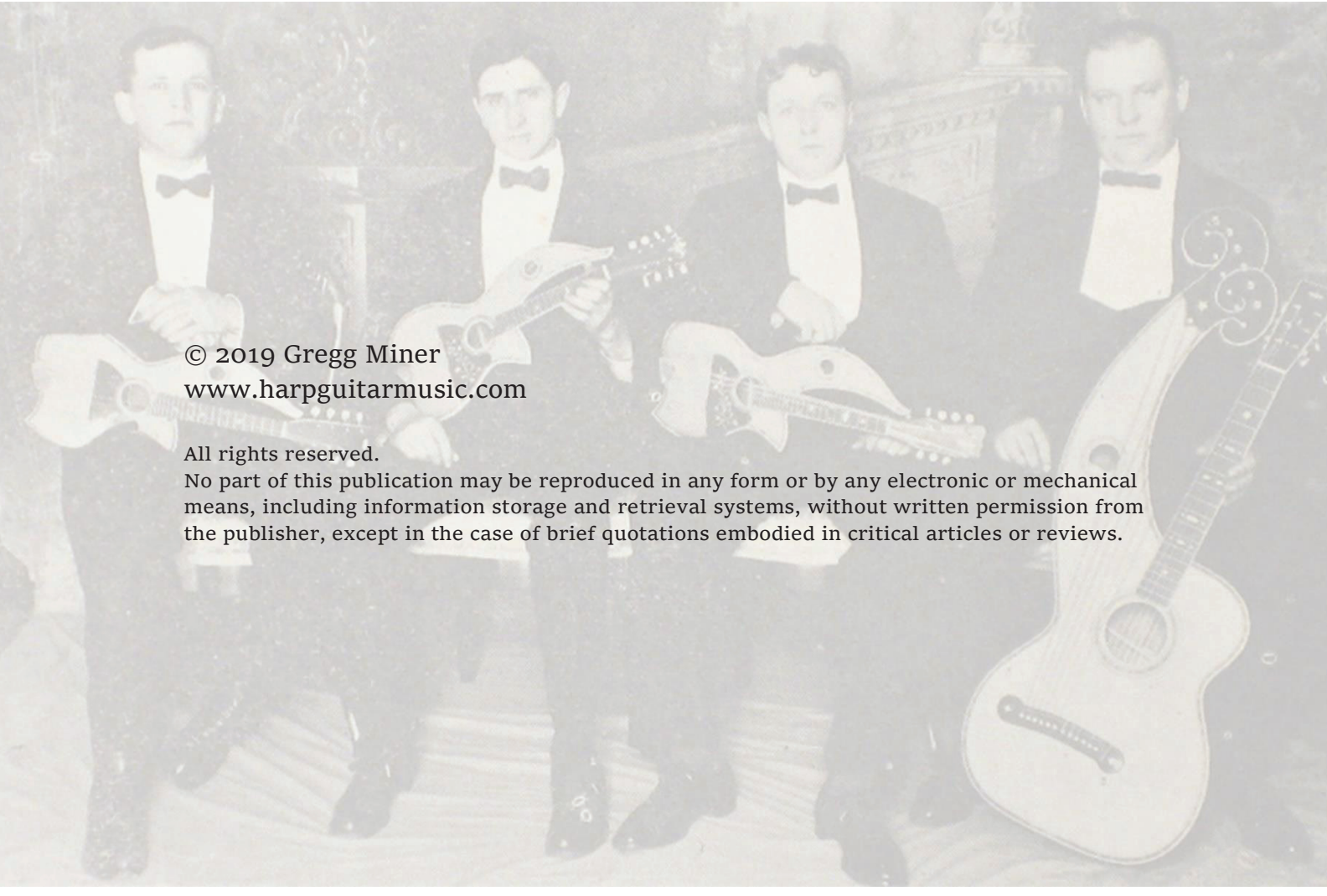
and the

Symphony Harp Plectral Ensemble

Gregg Miner

With special contributions from

Robert Carl Hartman



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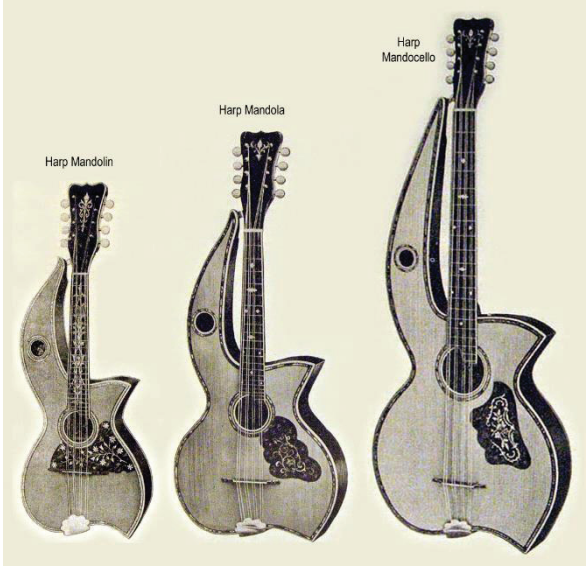


Dyer Symphony Harp Plectral Family from *The Cadenza*, 1917-1918

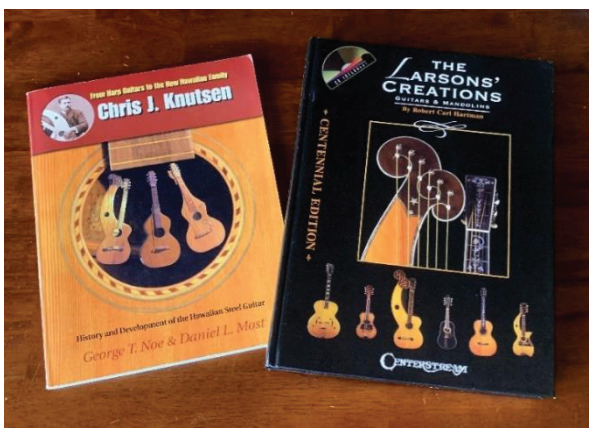
Dyer extant specimens

Foreword

Though the sight of the unusual instrument may be familiar to harp guitar aficionados and fans of fretted instruments built by the Larson brothers, its history has remained little understood. Indeed, the story of the Dyer harp mandolin has been one of those musical instrument histories that seemed destined to perpetually remain "to be determined." There were always simply too many unanswered questions. For example, when I first wrote online on the subject in 2002, there wasn't a single harp mandola known. Neither could we then confirm – let alone explain – the existence of the "backwards 1908 harp mandolin." By 2018, after the discovery of a late 1907 W. J. Dyer & Bro. catalog along with many additional instrument discoveries (we have now found *five* harp mandolas!), things started to fall into place. So, though I may be taking a risk committing this to print even now, I think I can finally put this fascinating topic into some sense of order!

The online version of this book (which *can* be continually updated) remains linked to, and part of, the "Dyer" section of *Harpguitars.net*, and is further tied in with my online *Knutsen Archives*, as the Dyer instruments evolved directly out of the Knutsen instruments and remain inextricably linked. Like the harp guitars, I have updated the serial number timelines for Dyer's harp plectral family.

For the purposes of dissemination, I (like most) use the shorthand term "Dyer," which should be taken to mean either the ***company*** **"W. J. Dyer & Bro."** (comprised of William J. and one brother and later three brothers) or, depending on the speculative topic under discussion, some unnamed **company *representative***. The "Larsons" or "Larson brothers" are August and Carl Larson of Chicago, who built the Dyer instruments. I typically refer to Larson descendent, author and expert Robert Carl Hartman as "Bob" (a close friend and colleague). Again, though we call them "Dyers," they are technically St. Paul, Minnesota "W. J. Dyer & Bro." instruments that were actually built in Chicago by the Larson brothers, a two-man shop legendary among guitar builders, players and collectors.



As always, previous books – both the Noe/Most Knutsen book and Bob's series of Larson Brothers books – should be considered a prerequisite to this one. I have updated and clarified certain things while bringing my own perspective to the subject but I don't duplicate much of the other book material here. Finally, my own book, *Norwegian Wood: The Incredible Imagination and Instruments of Chris Knutsen*, a standalone companion to my CD of the same name, showcases my personal Dyer instruments along with those by Chris Knutsen.

Introduction

Like most of my more detailed articles on *Harpguitars.net*, I assume the reader already has some familiarity with the subject. In this case, our subject is that smaller step-child of the famous and popular Dyer harp guitars – the *Dyer harp mandolin* (actually, a whole harp-mando family!). Confusion invariably sets in as soon as those new to this topic notice that the Dyer mandolin family instruments have no extra floating strings. So why do we call them *harp* mandolins? Simple – because the manufacturers (Knutsen, Dyer and others) chose to, as these creations were inspired by their harp guitars' hollow arms. Thus, these particular instruments are "harp" instruments solely due to that body extension (one of the many definitions of "harp guitar" in my Organology thesis "What is a Harp Guitar?"). They just aren't "true" harp mandolins as we define such today (though Knutsen did make many with extra floating bass strings).

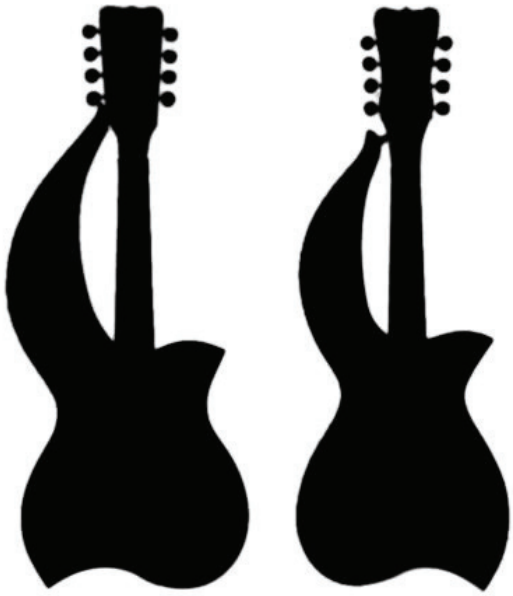
An unidentified trio with two top-of-the-line Dyer Style 50 harp mandolins and a Style 7 harp guitar, c. 1910–c. 1920.

"How do they sound?" is the obvious next question, as most of us would expect something surely different or wonderful…or why did they bother with the arm? And yes, in theory, the extra soundboard surface and air volume of the soundbox should give a little extra boost (it certainly does in harp guitars), but it is hard to determine what effect, if any, it has on these much smaller instruments. One would have to build two otherwise-identical instruments, one with an arm, one without, to have a chance of truly comparing them. I have frequently seen a problem with the tops of the Dyer harp mandolins deforming, which changes the neck angle and probably hurts the tone. I have recorded all of mine (and the Knutsens) on my *Norwegian Wood* CD.

"The Harp Plectral Quartet": After the late-1890s introduction of sized families of mandolins to correspond to the string orchestra (tenor mandola, occasionally octave mandola, mandocello and later, mandobass), mandolin clubs and orchestras quickly became an extremely popular pastime and ubiquitous in America. By the 'teens, most of the bigger manufacturers had a line of these instruments, including Gibson, Vega, Lyon & Healy, Stahl and many others. While the Larsons had been building the larger mandolin sizes for different manufacturers for some time, it wasn't until 1917 that W. J. Dyer & Bro. finally decided to jump in, commissioning the Larsons to create a complimentary "harp mandola" and "harp mandocello." With these two instruments alongside a couple of harp mandolins and sometimes including a harp guitar, enterprising musicians could thus create visually arresting "harp plectral quartets (or "quintettes)."

The Dyer Harp Mandolin Timeline

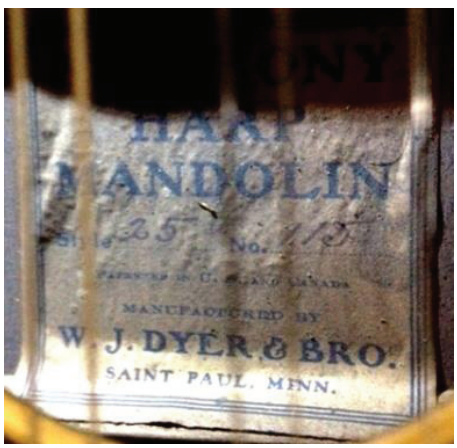
For quite some time, Bob Hartman and I labored under the impression that the Larson brothers didn't build their harp mandolins until around 1910 – despite the existence of the September, 1908 *Cadenza* ad. We attributed much of this conundrum to the fact that no one had ever actually *seen* one of these original mandolins, an unusual model with the lower point on the "wrong" side – the hollow arm (bass) side (compare the two silhouettes below).



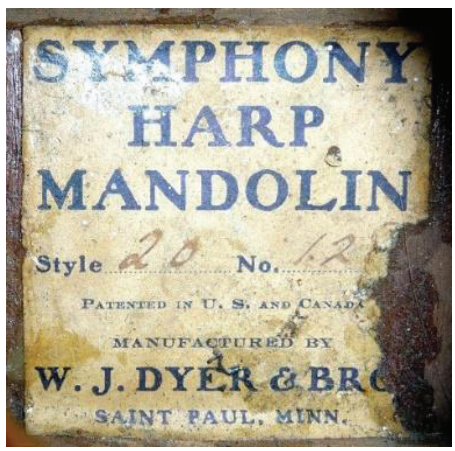
"Kitty-corner flares" Dyer harp mandolin

"Typical" Dyer harp mandolin

Finally, in 2012, one of these rare instruments turned up, eventually followed by three more. Then in 2018, a dated Dyer catalog was discovered, confirming that this harp mandolin first appeared in 1907.



Of the three extant specimens, two are missing a label, but the other two are intact and legible, displaying serial numbers 115 and 128.



Dyer harp mandolins with kitty-corner body flares. Style 20 & 25.

Here are two of the currently-known “kitty-corner" Dyer harp mandolins – a Style 20 and 25. No sooner had the most recent of these specimens appeared in 2016, than the 1907 Dyer catalog was discovered, with our "1908" harp mandolin included!

The catalog shows these same two models, the Style 20 and 25. The surviving four specimens consist of two of each model, and are pretty close to the illustrated instruments. The fingerboard inlays are an exact match, though the headplate inlay on the fancier model is simpler than the one depicted in the catalog. Its multi-colored purfling is slightly different also. The biggest discrepancy is in the arm tips; the catalog shows a separate darker cap there, not found on any extant specimens.

The catalog discovery thus moved up the date of these mandolins by a year – to mid or late 1907 (the catalog has a handwritten “received date” of November 9, 1907). Note also that it is “an entirely new creation.” However, something still did not add up! **There was a *third* harp mandolin design** which we had not paid enough attention to, one Bob and I now believe was actually created *first*.

W. J. DYER & BRO., SAINT PAUL.

SYMPHONY
HARP MANDOLINS

For several years we have been experimenting, endeavoring to produce a mandolin which would meet all requirements of the Professional Player, and at the same time be Moderate in Price. We are now pleased to offer

AN ENTIRELY NEW CREATION

Constructed on the same lines as our Famous Symphony Harp Guitars, embodying all the good points of other High Grade Mandolins, and in Carrying Power, Quality and Volume of Tone

EQUAL TO THE CONCERT HARP

The Model is different from anything ever before attempted in this line. The extension of body, as shown in illustrations, greatly increases the Volume, eliminates the metallic effect and produces a quality of tone that is

A REVELATION TO EVERY ONE

The Symphony is thoroughly made of the best material that can be obtained. Strung and played like the regular Mandolin. Easier to hold than the Bowl shaped styles, equally desirable for Ladies or Gentlemen and unsurpassed

FOR SOLO OR CLUB PLAYING

W. J. DYER & BRO., SAINT PAUL.

Symphony Harp Mandolins.

No. 20. No. 25.

Style 20.

Each

Style 25.

Each

Symphony Harp Guitars on Pages 174-183.

From the 1907 W. J. Dyer & Bro. catalog

In this image, what I now term the "Phase 1" harp mandolin is on the left, with the more common "Phase 3" on the right. Though their two pointed body flares are on the "correct" side (both on the rightmost or treble side) Bob and I had noticed that these instruments fell into two distinct groups – **one with a wide body and one with a noticeably slender body**.

From the timeline evidence of the Dyer ads and catalog, and as both had their lower bout flare on the *right* (treble) side, we had naturally assumed that the wide body followed immediately *after* the 1907/1908 "kitty-corner flares"model, before morphing into the slender body Phase 3 model, as illustrated in figure 1.

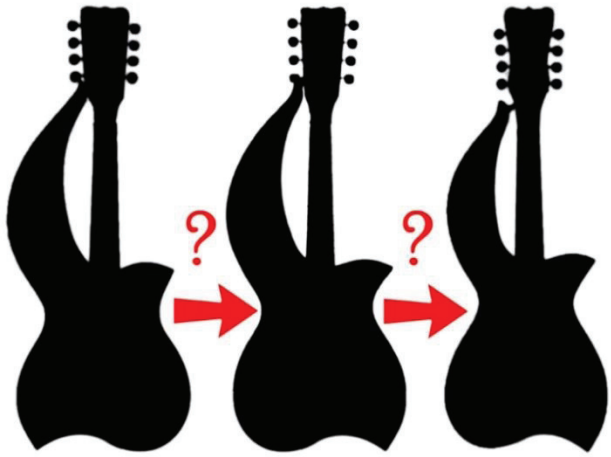


Figure 1 (Seemingly logical body progression): Note that the body *proportions* of the first two are the same. The middle instrument then switches the lower flare to the right side. In the final instrument, the flares are already in place; the body just becomes skinnier. Though this progression would *seem* logical, it is *not* the actual sequence.

After re-collating all the serial numbers and taking another hard look, we realized that it *had* to be wrong. While it remains difficult to fully crack the serial number sequences of Dyer instruments, this one seems pretty obvious.

Again, it took having a big enough sample of specimens with known serial numbers. What we had thought was the *second* "progression" phase above has the *lowest* serial numbers! The final phase has all the highest numbers, as one would expect. Thus, our evolutionary progression is really as in figure 2.

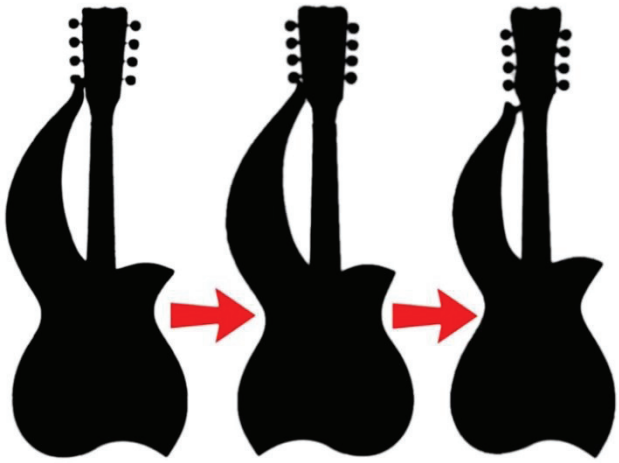


Fig. 2 (Corrected sequence of body design changes): The body started out wide, then switched the lower flare to the *left* side, then quickly *back to the right* again, while the body became slenderer.

Phase 1 (c. 1906–c. 1907)
Serial nos. known: 105, 107, 108

Phase 2 (c. 1907–c. 1909)
Serial nos. known: 115, 128

Phase 3 (c. 1909–c. 1920)
Serial nos. known: 141 and up

The correct progression is shown again above with the known serial numbers listed. It thus appears that at least *eight* instruments (counting from the theoretical #101 to the #108 example) were of the wide-bodied variety with both body flares on the right side, built *before* the first advertised 1907 Phase 2 models, of which at least fourteen were made.

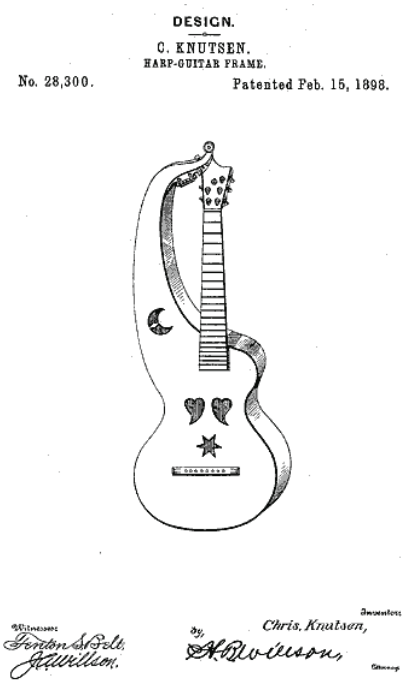
Then, perhaps in 1909 (certainly by the close of 1910, as #141 has an inscribed date inside the top of 12-25, 1910), the final model appeared. The lowest of these known Phase 3 numbers is 141, which leaves no more than forty combined for Phase 1 or 2 wide-bodied models.

We finally cracked the code!

The Knutsen / Larson Design Mystery

We've now seen the evolution of the Larson brothers' harp mandolin body and its curious pointed flares. But why and where did these features come from? We'll likely never know *why* (just a way to stand out from the crowd?), and we may never know *who* first imagined them.

Was it one of the Larson brothers? Or Chris Knutsen?


DESIGN.

C. KNUTSEN.

HARP-GUITAR FRAME.

No. 28,300. Patented Feb. 15, 1898.

Witnesses: Fenton & Felt, J. Carrillon.

Inventor: Chris. Knutsen, by A. H. Wilkinson, Attorney.

Chris Knutsen's second patent, granted on February 15, 1898: a hollow-arm harp guitar with floating bass strings.

No informed study of the Dyer harp guitars or harp mandolins can be complete without a thorough understanding and analysis of Chris Knutsen's instruments. Unfortunately, there are often as many questions as answers when it comes to Knutsen's own inventions and timelines.

The Larson brothers' first Dyer harp guitar model, patterned after Chris Knutsen's c. 1898–c. 1902 Symphony harp guitar.

What we *do* know is that in the early 1900s Knutsen's design patent #28,300 was licensed to the Dyer company and that his specific c. 1898 "Symphony harp guitar" design was duplicated by the Larson brothers as the first "W. J. Dyer & Bro." Symphony harp guitar.

Whether or not the Larsons ever had direct communication with Knutsen is another fascinating but unanswered question. We only know that they must have had an example of one of his instruments in hand, as they quite closely copied it, with very slight visual refinements (along with their better construction improvements, including a dovetailed neck heel; Knutsen's heel was a crude butt joint). The Larsons then quickly redesigned the instrument as the famous Dyer "Type 2" instrument with the "cloud" bass headstock so well known today.

At that point, it might seem as if they would have little need for further interest in – or even awareness of – what Knutsen was doing throughout the 1900s. Yet sometime in 1906, a new and very distinct design element appeared on instruments from *both* the Larson brothers and Chris Knutsen – the "pointed body flare" – with someone clearly copying the other.

But who?!

The known Pre-harp and Harp Mandolin designs of Chris Knutsen.

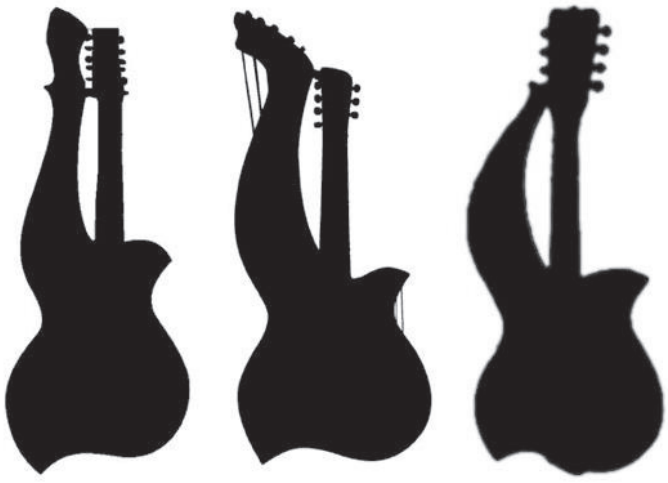
This fascinating line-up illustrates Chris Knutsen's known variants of pre-harp and harp mandolins, the final shape being a true harp mandolin with additional bass strings. The order from left to right looks vaguely evolutionary, but the actual order of introduction is unknown. (Note how Knutsen also switched the lower body flare from one side to the other!) They seem to have all been introduced by 1910, and lasted only until about 1914, when Knutsen concentrated on his New Hawaiian Family, where the harp ukulele and various steel guitar variants took the place of his standard harp guitars and harp mandolins. But other than most having a pointed flare on one of the lower bouts, these are not the focus of our investigation into the Dyer harp mandolin design.

Knutsen c. 1906 short-scale "double point" harp guitar

Rather, it was Knutsen's *"double point" harp guitars*, introduced about 1906. My guess is that the dual flares were an additional embellishment to Knutsen's key harp guitar change at this time: the "lower bass point."

Coinciding with his move from Tacoma to Seattle, without exception, *all* of Knutsen's harp guitars would now feature the pointed flare on the bass side of the body's lower bout. At roughly the same time (c. 1906–c. 1908) the Larsons debuted a third ("Type 3") Dyer harp guitar model with a pointed bass flare nearly identical to Knutsen's; their sub-bass headstock was clearly Knutsen-inspired also. Only a handful of the Dyer type 3s were made, all occurring within a short "early 600" serial number sequence, whereas Knutsen retained the flare (or two) until his move to Los Angeles in 1914.

Left: Knutsen c. 1907 "lower bass point" Seattle harp guitar
Right: Larson brothers c. 1907 Dyer Style 3



Left and center: Knutsen's two "double-point" harp guitar bodies. Right: Larson brothers Dyer "kitty corner" harp mandolin.

At left (re-scaled to show comparison) are Knutsen's two basic double-point plantillas with the Phase 2 Dyer mandolin on the right. The similarities are beyond obvious. But which came first? And remembering the three Dyer harp mandolin transitions, why would the Larsons – on behalf of Dyer – start with both flares on the right, then quickly switch to the kitty-corners (which debuted as the "first" instrument)? Then almost as quickly, switch the flares back again, with a slight body refinement?

I have always assumed – and still believe – that all this *must* have something to do with *Knutsen's own double-point harp guitar design.* He created his basic plantilla sometime in 1906, at the same time that he added his first (single) flare to his harp guitars (the "lower bass bout" Seattle design). The Larson's Phase 1 flared instrument and Knutsen's single and double-flared instruments both seem to have appeared around the same time (probably 1906, certainly by 1907). The Larson's Phase 2 harp mandolin then appeared about a year after Knutsen's identical double-point, but only for a brief time. I can easily see the two entities (Knutsen vs. Dyer/Larsons) squabbling over this "creative property" – no matter what licenses or patents were still in play. I just can't quite figure out how it might have gone down. (See also my extensive discussion with patent lawyer Tom Noe about the possibilities regarding licensing and Knutsen's patents in my online article "Dyer Dating." Links at end of article.)

The gentleman above appears to be playing the earliest form of Dyer harp mandolin – wide, with both flares on the treble side.

Dyer's Harp Plectral Ensemble

Referring back to the 1908 Dyer harp mandolin advertisement discussed earlier, we are incredibly fortunate in that the Dyer Co. chose to advertise *monthly* in the two key BMG periodicals (Banjo, Mandolin & Guitar) of the early 20th century: *The Cadenza* and later *The Crescendo*. This gives us a large part of our history and timeline, although the hunt is filled with red herrings (see Harpguitars.net's Members Section article "Dyers in the BMG Magazines" for a full analysis of the entire ad runs).

Dyer only ran their "backwards" Phase 2 harp mandolin ad for three issues before switching back to the harp guitar. Then, in November, 1910, *The Cadenza* ran this photograph of "The Symphony Harp Quartet." All three pictured instruments are of the final *Phase 3* style, which we previously determined had started by at least December, 1910. This photo puts that a bit earlier – by the fall of 1910.

"The Symphony Harp Quartet" – photographed before November, 1910 – featured a Dyer Style 7 harp guitar and three Phase 3 harp mandolins, including the new Style 35 level of trim.

From *The Cadenza*, February, 1911

A couple of months later (February, 1911) new harp mandolin ads appeared in both *The Cadenza* and *Crescendo*. It now showed the final Phase 3 production model, though there was no mention of a "new model."

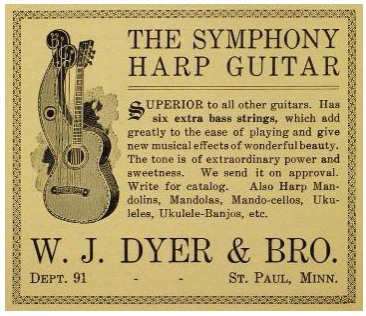
This period must have been the Dyer harp mandolin's heyday - while the *Crescendo* ad ran continuously for 11 months, the *Cadenza* ad ran monthly for a staggering 47 months! I would expect that the bulk of them must have been built and sold in this timeframe.

From *The Crescendo*, February, 1911

Now things get interesting. After the last (mandolin) ad in *The Cadenza* in January, 1915, Dyer stopped advertising in both magazines for a *full 31 months* – no harp guitars, nothing. This is curious, since they had been typically advertising monthly for the most part. What was going on?

I think that Dyer was working with the Larsons to create the new "harp plectral quartet."

In August (*Crescendo*) and September (*Cadenza*) of 1917, the Dyer ad campaign began anew. The new harp guitar ads contained a fine print mention of the harp mandolins *and now* mandolas and mandocellos. Perhaps more tantalizing, both magazine editors mentioned (and one raved about) the new Dyer catalog, which introduced the new mandolas and mandocellos. I would imagine that the catalog was fully illustrated with all the instruments.



The Crescendo, August, 1917

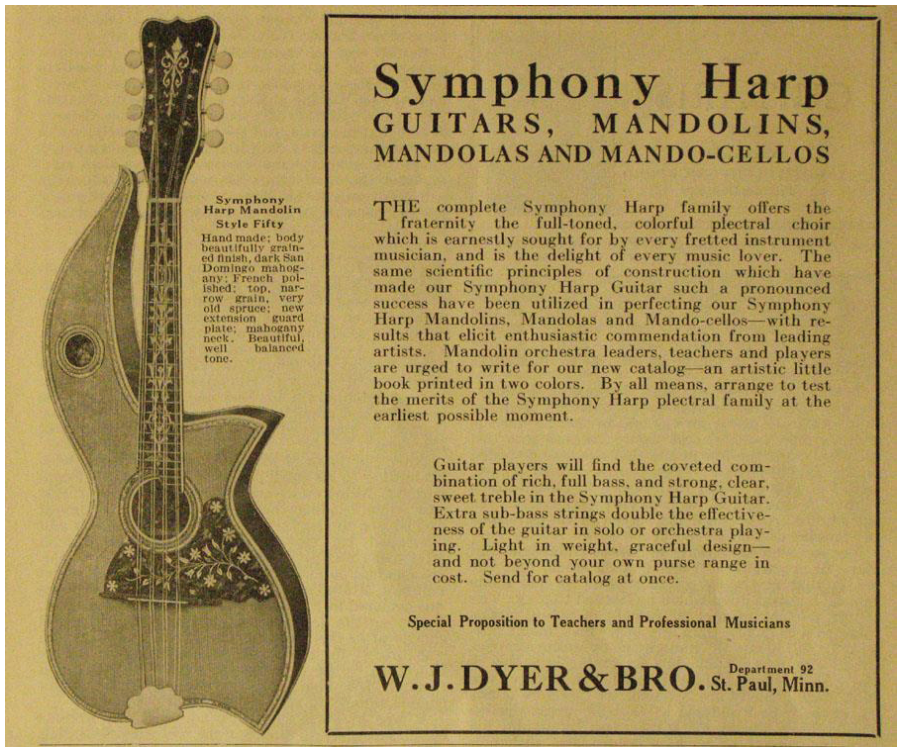
SYMPHONY

The above word, in a shade of rich brown, is stamped on a lighter shade of the same color for the cover of one of the most complete and artistic catalogs we have seen for some time. Its completeness lies in the amount of information embodied on forty pages, and its artistry is embraced in its style, imprint, cuts of the various instruments presented and photos of single and ensemble performers using the instruments. The whole is from the house of W. J. Dyer & Bro. of St. Paul, Minn., manufacturers of the symphony harp guitars, mandolins, mandolas and mandocellos, and is well worth looking through by all players of these instruments.

The Crescendo, December, 1917

Next, rather than re-running the same ad as was common, Dyer rolled out the new "harp plectral quartet" (or "quintette") family in fairly quick succession – each would run just once (and only in *The Cadenza*). First up was the mandolin, which had been available now for several years.

Each ad depicts the top-of-the-line example: The Style 50 mandolin, Style 145 mandola, and Style 250 mandocello. In actuality, there was only a *trio* of harp plectral instruments – the quartet or quintet resulted from having a 1st and 2nd mandolin part, with harp guitar to round out the quintet.



The Cadenza, October, 1917

The Cadenza, December, 1917

SYMPHONY HARP MANDOCELLO

Cut Shows Style 250

Another member of our celebrated "Symphony Harp" plectral family. As a solo instrument it is conceded by leading artists to be the king of the "mando" family. The rich, mellow cello tones are sure to please all music lovers, even when manipulated by a player of only moderate skill—which can easily be attained by any mandolin player. In the mandolin orchestra the **Symphony Harp Mandocello** is indispensible, supplying the intermediate tone color and reinforcing the bass sections.

Symphony Harp Mandolin Quartettes (1st and 2d Symphony Harp Mandolins, Symphony Harp Mandola, Symphony Harp Mandocello) for chamber music—in concert, vaudeville or society work—open up a new source of income for up-to-date plectral musicians. The sightly instruments, with the perfectly blending tonal coloring of the various voices attract and retain the attention and admiration of the public.

Special Proposition to Teachers and Professional Musicians. Write for Particulars Today.

W. J. DYER & BRO. Department 92 ST. PAUL, MINN.

The Cadenza, February, 1918

A surviving Dyer Symphony harp plectral family shown to scale.

Sadly, this remarkable and distinctive (or perhaps “outlandish” is a better word) set of instruments never caught on, and extremely few mandolas and ‘cellos were built.

Surviving Specimens
Harp Mandolins

Style 20 Style 25 Style 35 Style 50

The three phases of body styles were built in at least four levels of appointments, from plain to fanciest, a Style 20, 25, 35 and 50. It seems that the earlier models appeared only in the two simpler styles while the final model omitted the Style 20 and favored the fancier styles. Many specimens have slightly different inlays and trim. The Style 25 probably shows the most variation of all. Besides appearing in all three Phases, depending on the era, it can additionally have the shaped (non-rectangular) headstock, a single headstock inlay and/or fancy fret markers like the Style 35.

As of mid-2019, there are 31 serialized harp mandolins inventoried: five Style 20's, nine Style 25's, eleven Style 35's and six Style 50's. There are many additional specimens known of various models that are missing labels or serial numbers. With serial numbers ranging from 105 to 264, we know that at least 164 Dyer harp mandolins were thus produced (#101 being the assumed first serial number). From the labels, we know that at least 124 of these (75%) would have been the slender Phase 3 model, by far the most common. In fact, a surprising number of historical images featuring Dyer harp mandolin players have been found; most depict the Phase 3 models.

Another trio c. 1910s with Dyer Phase 3 harp mandolins and harp guitar.

We already know about the body width difference between the Phase 1 & 3 models. Another interesting feature is the random variation in the shape of the hollow arm's tip. Did the Larson brothers mold have fixed body walls with an opening for a difficult-to-bend arm tip that they would improvise? To show the consistent and inconsistent features, below is a direct comparison of three random Style 35 harp mandos – all Phase 3 – that I once had in hand at the same time.

Style 35 Phase 3 Harp Mandolins, L-R: #188, #X (label missing), #223

There are a lot of subtle differences, including:

- The pearl inlay in headstock is placed at three different heights.
- The arm tips are all differently shaped.
- The fretboard inlays all match except for one different 5th fret marker on #223.
- The pickguards are all the same, though the pearl in #223 is more centered in the celluloid away from the body (cut from a larger stock piece?).
- The bridges are all different (originality unknown).
- The nut and saddle of #188 are abalone (!).
- The tailpiece covers are all standard type of the period, with #188 being engraved (any or all could be non-original).
- The neck of #X appears shorter, though the scales are all identical.
- On the back side, the top of the arm is square on #188 and rounded on the other two.
- From the side, #X is leaning further back due to a smaller (?) back that changes the angle of the bottom edge.
- The tuners have ended up at slightly different heights.
- The different neck angles are due to movement over time.

The Larson books show additional differences on the "same" models.

A Dyer/Larson Family Heirloom

By Robert Carl Hartman

This unlabeled harp mandolin is an enhanced Dyer Style 35, in that the elegant fret markings are exceptional to the brand. The fancy inset pickguard has three extra snowflakes and a flower added to the standard intricate abalone floral design. The nameplate on the peghead is unique to any other Larson-built instrument. The original inset pearl plate bearing the "Larson" name had been lost years ago but was replaced during the restoration of the instrument in 1980. It now has "Larson" etched into the new white-pearl plate to restore it as the only Larson instrument to bear the maker's name. This instrument reveals the artistic ingenuity of Carl Larson to redesign the appointments for this very special gift to his daughter in 1916.

The restoration of this formerly near-mint instrument was due to a disturbing event in 1979. My wife, Carol, and I had returned from a one-week camping trip and were devastated to find our home vandalized with damage in every room. Our musical instruments were laid on the floor and smashed with an ax to the point of damaging not only the top but going through to the back. The severely damaged top of the Dyer was saved but the back needed to be replaced.

Three of the five smashed instruments were family heirlooms that Carl had handed down to his children: this one-of-a-kind Dyer harp mandolin, a unique parlor guitar, and a one-of-a-kind taropatch.

This tragic event had a silver lining as it was the catalyst to have the instruments appraised and sparked my interest to begin the now forty-year quest to document the products and careers of my grandfather, Carl, and great-uncle, August, Larson. The Larson brothers are revered as makers of beautifully decorated, premier quality acoustic guitars, mandolins, and a few other assorted hand-made artistic creations.

The harp mandolin measurements are:

Lower bout top: 8 7/8", back-8 13/16"

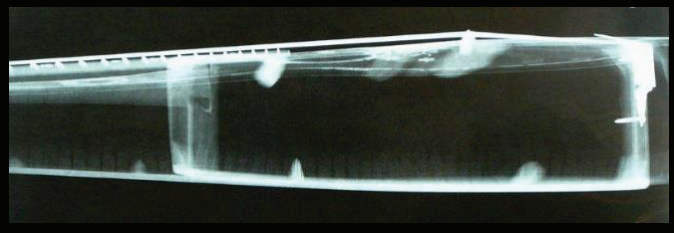
Upper bout from tip: 7", back- 7 1/8"

Waist top: 5 1/16", back: 5 1/16"

Depth at butt end: 3 1/8", at neck block: 2 3/8"

Scale length: 13"

Total length: 23 9/16"



Note: I include the measurement of the top and back to indicate the asymmetrical body shape. This trait is evident in most of the Larson guitar bodies as well.

– RCH

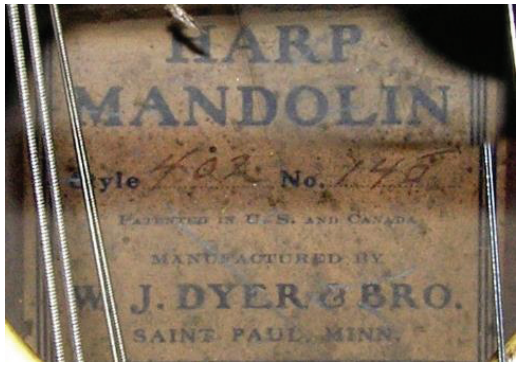
Harp Mandolas

The Larson brothers' harp mandola for Dyer followed America's common "tenor mandola" tuning (CGDA, which duplicates the viola part of the orchestra). There was no real standardized scale length for the American instruments, so different manufacturers created their own; the Dyer was 16.25". The lower pitch and larger body of the harp mandola naturally gave it a richer, deeper tone than the harp mandolins.

When I published my first Dyer harp mandolin article in 2002, *no* harp mandolas were known to exist! As of this writing, *five* are known – which quite possibly constitutes the entire known production of these instruments. Here are the five known specimens (plus the ad illustration) with my analysis:

Specimen A has no label. I've got it as a hypothetical (placeholder) #401 as it looks like a prototype candidate to me, with its abnormally fat arm. If true, an absent label might make sense. The rather eccentric decoration is of course some past owner's creative customization.

Specimen B is the first one that I became aware of, submitted by the owner in 2007. It was our very first mandola label, which initially caused Bob and me some confusion due to an obvious "clerical error" – its Style and Serial number inscriptions were reversed! (Note that they also used a standard "Harp Mandolin" label for convenience.) Its "145" matches the "Style 145" given in the *Cadenza* ad (as does every visual feature of the model). "402" is thus the serial number – representing the second one built or serialized – also revealing that the Larsons' chosen numbering system for the mandolas was 400 (which was never used for Dyer harp guitars or mandolins).



The first Dyer harp mandola label ever seen. The Style and Serial numbers were written in their opposite fields. Note that an original "Harp Mandolin" label was used, causing further possible confusion to future historians!

Specimen C is serial #403, and the only plain model of the bunch, "Style 135" (all other specimens are the fancy abalone-trimmed Style 145). Having one finally in hand enabled us to measure and compare the Dyer mandolas to the mandolins for the first time (see Table).

Left and right: Dyer harp mandola Style 135, Serial #403, in author's collection.

Specimen D was actually the first Dyer harp mandola seen – the problem was no one realized it! Mandolin Brothers sold it long ago, listing it and selling it as a "mandolin." Clearly, its label must have been missing (or said "Harp Mandolin") and they didn't pay enough attention to its longer scale and larger size. When I spotted their photo in Bob Hartman's 2007 *The Larsons' Creations* book, he quickly agreed ("I was always suspicious"). To this day Bob and I don't know who owns it, or if they realize what they've got! I have this one as "placeholder #404" as that spot is currently empty. It has a couple anomalies: the distinctive mandola pickguard design has some additional area and the ebony with pearl inlay headplate is missing (removed?).

Specimen E was discovered in 1998 but came to our attention in 2009 – happily, with a label! Serialized as #405, this then gave us proof of at least five consecutive numbers. Some interesting statistics: In Dyer harp guitars, the numerical range of our just over one hundred collected label serial numbers give us a convincing estimate of 500-600 that may have been built (with the many known unlabeled specimens, this is about a 25% "survived and found" rate). Again, it's curious that the mandolas already enjoy all appearances of a 100% S&F rate!

What about the last **Specimen F** from the ad? I would suggest that this illustration is accurate and not arbitrary. Meaning, matching a real, built instrument. Thus, not only should all the trim obviously match one of our specimens (Style 145s were very consistent), but the main variable – *the arm tip shape* – should match also. Interestingly, F does not seem to quite match any of the others. A sixth specimen?

Here are the dimensions of my Dyer harp mandola compared to my Phase 3 harp mandolin:

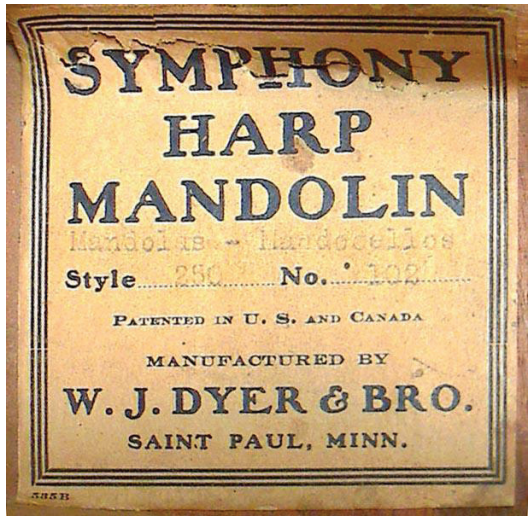
	Harp Mandolin	**Harp Mandola**
Lower bout	8-5/8"	11"
Depth at tail	3-1/16"	3-1/16"
Depth at neck	2-3/16"	2-1/16"
Total length	23-5/8"	26-7/8"
Scale (nut to 12th fret x 2)	just under 13-1/8"	just over 16-1/4"

Harp Mandocellos

The two extant Dyer Symphony Harp Mandocellos. Like the harp mandolas, there are two styles: 240 (plain) and 250 (fancy). Note that the 240 has a single dot for the 12th fret and doubles at the 10th & 15th, while the 250 has double dots at the 12th and singles at the 14th & 16th!

The mandocello (or "mando-cello") is the mandolin equivalent of the violincello, tuned to the same low CGDA. Almost as common as mandolas – as they were required for a complete American mandolin ensemble – they had been popular for almost two decades by this point. But a *harp*-mandocello?! Note how the longer scale (similar to the guitar) necessitated an abnormally long hollow arm.

Two of these incredibly rare creations have been discovered – quite possibly the only two ever built. Amazingly, both labels are intact - but, oh, what a tangled web they weave!



First, note that, like the mandola, Dyer did not have new dedicated labels printed. Instead, "-lin" was covered with paper and "-cello" written in by hand for the first one, and for the second, "Mandolas – Mandocellos" was typed in under "Mandolin" which was left intact.

The fancier specimen is stamped "250" for the style, and its appointments expectedly match those of the "style 250" in the ad. Its serial number is 102 - and for once, we can be positive of the number, as it was *typed* in. The other specimen is labeled Style 240, which makes sense for the plainer model. However, *its* serial number is a completely different series. What is going on?! Clearly, the handwritten serial number is not "101," which would have tied things up nicely. No, it appears to be "501" – although we can't quite rule out "601." This label does not appear in any of the Larson books, owner Mickie Zekley photographing it for us more recently. Bob thought it looked like someone was trying to turn some other number into a "6" and – compared to the other "closed loop 5's," it does, at that (See Appendix A).

Regardless, it is *extremely* unlikely that the two instruments were not built within two or three short years of each other (c. 1917), and Bob has always concurred that it is virtually impossible that #102 was built in the early 1900s, before the harp mandolin and well before the mandolin orchestra's heyday. Therefore, the obvious conclusion is simply that #501 coincides with "mandocello #1" – "500" being the series designation, just as "400" was for the mandolas (the mandolins starting at 100 and continuing directly into the 200s, as did the overlapping harp guitars).

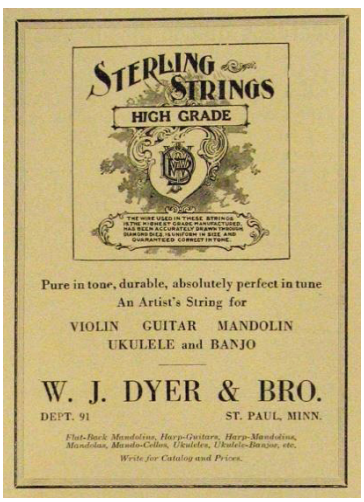
Typed label #102 would of course be "mandocello #2" – thus, two 'cellos known, with the serial number equivalents of "1" and "2." The "switch" to a 100-series was likely just a clerical error. There may have been a third, prototype 'cello as well, since the illustration in the ad shows a different pickguard, shaped like the plain 'cello's but inlaid similar to the other.

In the end, we can reasonably date the mandocellos to 1917-1918, but we can't precisely define their serial number *series*, whatever we think it was originally intended as.

Ron Petit, the owner of harp mandocello #102, also owns a fancy Style 50 Dyer harp mandolin. When asked how he acquired these two prizes, Ron told the story: "These two instruments have remained together since leaving the Dyer store! I bought them from a fellow in Richfield, Minnesota in 1994, who had bought them from the original owner in 1954. These two instruments were used in a family Vaudeville band – with husband (harp guitar), wife (piano) and two daughters (mandocello and mandolin). Very serious instruments for a family band – no doubt there are pictures out there somewhere of this band in action!" (*sadly, such have yet to found – GM*)

Harp Plectral Quartet Rarity, Decline and Fall

The Dyer harp mandolins – like the harp guitars – were fairly popular for a period of at least ten years, though their numbers probably never reached 200. From our current evidence, we know that additional harp mandolins and a very few examples of the larger harp plectral ensemble instruments were ordered, built and sold through 1918 and perhaps beyond. Unfortunately, the new line was a casualty of poor timing in nearly every way. For one thing, they were introduced smack in the middle of the United States involvement in World War I (April, 1917–November, 1918). Dyer was also "late to the party" – nearly the last one into the plectral orchestra market – just as the mandolin orchestra craze was starting to wind down. Due to the immense popularity of both Hawaiian music (utilizing ukuleles and steel guitars) and the coming jazz age (with tenor banjos dominating), mandolin and guitar ensembles would hold on for perhaps another decade until they all but disappeared.

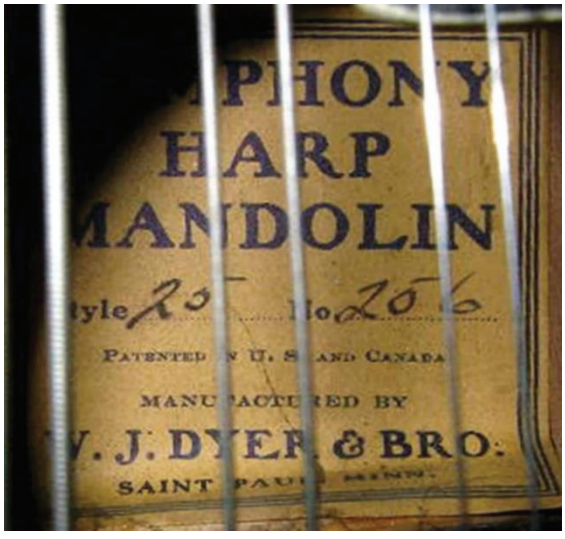


In November, 1919, a *Crescendo* ad for Dyer's "Sterling Strings" mentioned the harp guitar and mandolin line for the very last time.

In the 'teens, the "Greater Invincible Concert Company" of Kansas City, Missouri utilizes a spectacular line-up of instruments, including a Dyer Style 7 harp guitar and two Dyer harp mandolins, along with a Gibson Style U harp guitar and three Gibson mandolins.

Appendix A: Dyer Dating and Poor Penmanship

We get much of our Dyer provenance from the labels remaining in the instruments. Obviously then, when they are missing, faded or otherwise hard to read, we lose that data – or worse: in some cases, we record bad data from misinterpretation of handwritten serial numbers. Over the years of Dyer production by the Larson brothers, evidence of various hands filling in the supplied labels can be seen, with a couple unknown individuals' penmanship recognizable – if not necessarily *readable!* Our list of Dyer harp guitar and mandolin serial numbers – often supplied by owners who may have misread their labels – is thus suspect. Going forward, we all need to procure and archive these images for more accurate provenance.



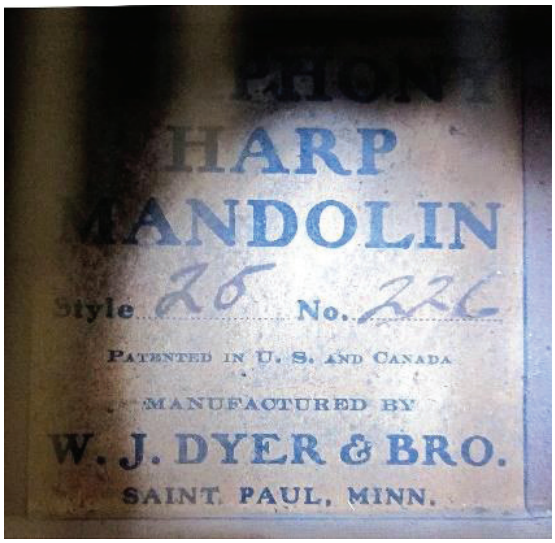
Style 25, No. 256 harp mandolin

After having collected a much larger sample of label images, we can now better decipher the trickier numbers, especially that sloppy "5," with its closed loop and separated top dash. As an example, all of the following labels feature the handwritten number "5," by one or two hands. The owner of mandolin #256 provided the original Hartman number "206," though we can now clearly see from their web site that it is "256" (at left).

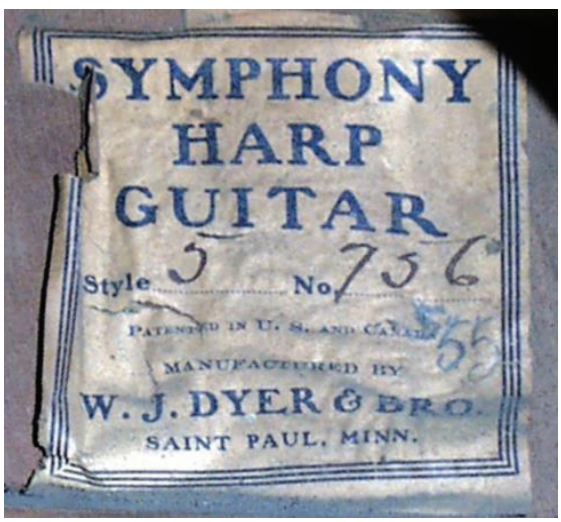
Other "5"s we have long interpreted as a "6" – only after seeing a label with *both* numbers could we accurately decode the scribe's "6" and unusual "5." (Ex: Harp guitar label #865 below, where its number first looked more like "846.") I have thus been able to go back and correct several of these "either/or" entries.

Style 4, No. 865 harp guitar

Style 35, No. 257 harp mandolin

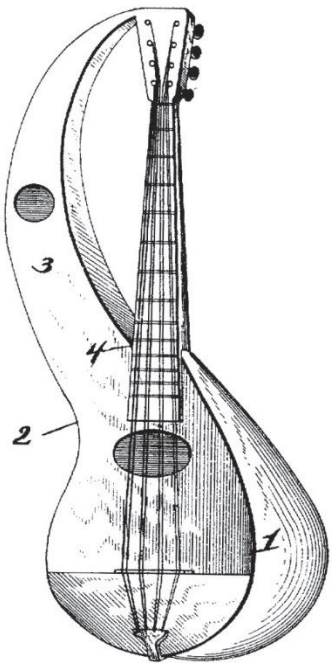


Style 25, No. 226 harp mandolin

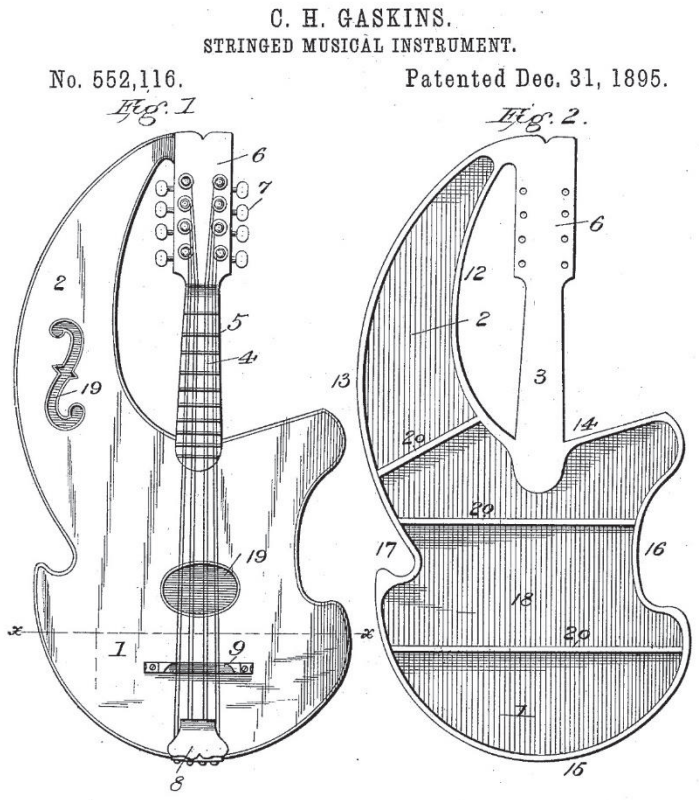


Style 5, No. 756 harp guitar

Appendix B: Harp Mandolin Designs and Patents: Gaskin, Livermore, Knutsen and Dyer



Livermore Harp Mandolin Design Patent #D26424, 1896



Gaskins Harp Mandolin Utility Patent #552,116, 1895

We now know that Dyer introduced their Larson-built harp mandolins in 1907 or possibly even earlier. Dating Chris Knutsen's own entry into the field is trickier. There is some evidence that he built hollow-arm mandolins prior to 1910, but we can't be positive – other than the unique flared instrument from a circa-dated 1907 photo. The thinking – proposed by Noe and Most in their Knutsen book – was that Knutsen was prevented from offering his own harp mandolin until December, 1910, when the Livermore harp mandolin patent expired. As the book explains, Knutsen was clearly aware of the Livermore patent (and its expiration date) as Livermore was Knutsen's own patent witness, who then seems to have immediately gone behind Knutsen's back to patent his own bowlback mandolin version of Knutsen's harp guitar!

If true (Knutsen waiting until the end of 1910), Bob Hartman and I wondered this: if Knutsen was prevented from building a harp mandolin before 1911, why wasn't Dyer? An additional point – that Tom and Dan's book omitted – is the Gaskin harp mandolin patent, which appeared a year earlier (expiring on the very last day of 1909). Did that not prevent Knutsen or Dyer as well? It was actually far closer in design that the Livermore illustration. For that matter, how did Livermore get *his* patent approved with the Gaskin already in place?

The answer here is that Gaskins' was a *utility patent*, and its hollow arm and neck solid "continuous construction" formed part of the patent. Presumably then, neither Livermore's nor Dyer's infringed on the specifics. Livermore's patent a year later was a *design patent*, and – according to patent expert Tom Noe – the Dyer and Knutsen harp mandolins were "substantially different 'designs' of the same basic concept; thus, both could co-exist."

Martin Co. harp mandolin, built on Gaskins patent, c .1895

Here, I find it ironic that the two Martin harp mandolins built for Gaskins under his patent do not follow the patent details either; the neck is a separate unit, (presumably) dovetailed as was normal.

The above therefore seems to explain why both Dyer and Knutsen could introduce harp mandolins anytime they chose. It now remains to discover if Knutsen may have begun building his when the Larsons did.

The final patent mystery is the appearance of "Patented in U.S. and Canada" on the labels of *all Dyer harp mandolins* – including those of the late 'teens. Tom Noe had no answer, saying "it seems to be a completely fraudulent claim." The only answer here is that Dyer applied the patent they had licensed from Knutsen's *harp guitar* design patents to their harp mandolin. But as both of his patents stated specifically only "guitar," this would indeed seem fraudulent.

See my online "Dyer Dating" article for much more on deciphering Dyer's patent licensing.

Appendix C: Dyer Harp Mandolin Serial Number Matrix

Serial Number	Body Phase	Style Number	Miner's Timeline (Revised 2019)
105	1	20	c. 1906/1907
107	1	25	c. 1906/1907
108	1	20	c. 1906/1907
115	2	25	c. 1907
125		20	c. 1908
128	2	20	c. 1908
141	3	35	c. 1910
145?	3	25	c. 1911
156	3	50	c. 1912
157		50	c. 1912
158		35	c. 1912
160		35	c. 1912
163	3	25	c. 1912
177		20	c. 1913
180		50	c. 1913
187		50	c. 1914
188	3	35	c. 1914
190		25	c. 1914
192		50	c. 1914
215		35	c. 1916
218	3	25	c. 1916
222		35	c. 1916
223		35	c. 1916
226		25	c. 1917
233	3	25	c. 1917
235	3	35	c. 1917
254	3	50	c. 1918
256	3	25	c. 1918
257		35	c. 1919
259		35	c. 1919
264		35	c. 1920

At this point in time the build dates in the Larson Brothers books are well out of date and erroneous, as Bob Hartman and I had long ago moved the higher number mandolins, along with the mandolas and mandocellos to 1917/1918.

This timeline is my own, and remains an educated guess for the most part. All dates are approximate and should be written “circa” or “c.” (Date), meaning that in this case that they could be off a year or even more in either direction.

Two dates (and specimens) on this list may be accurate, as they are dated inside in pencil. We can’t say who did this, though if inscribed inside, such as on a brace (as #141 was) we can assume one of the Larsons did so before completion. Besides #141 in the National Music Museum, the owner of #257 tells us that his is inscribed Feb, 1919, and according to family lore was bought new for his grandmother (b. 1907) when she was 12 or 13. 1919 is indeed about where I would have placed it regardless.

I have also included Style numbers and Phase types where known. Bob Hartman and I further maintain a private (and incomplete) owner history on the list.

This list includes all known harp mandolin serial numbers. The known numbers of the mandolas and mandocellos discussed earlier begin in 1917 or 1918 and may extend beyond 1918 or not.

Appendix D: The Mysterious Five-Course Harp Mandola

I believe this large, amazing instrument to be Larson-made. There are no markings or labels of any kind. When it was built is unknown, but it is extremely curious that it looks *exactly like a giant Knutsen "lower bass point" harp mandolin* rather than a new Larson design. Knutsen himself made a version of this instrument form (a 5-course, longer scale mandola) but it has its own somewhat altered shape and fits well alongside his harp mandolins. This Larson-creation is much larger – an imposing 16" wide and a full 4 inches deep!

After sending images to others knowledgeable about Larsons, we all agree that the Larsons are the best candidate. In no particular order, Larson brothers characteristics (as opposed to Knutsen or builders unknown) include:

- The instrument has a full heel.
- The center back brace is horizontal.
- The 3-piece neck is considered an early Larsons feature.
- The fingerboard binding ends above a visible line of ebony underneath (although when I peeled back the binding edge enough to check, it appeared to be a shim, not a single piece, as reported in Larsons).
- It is braced "under tension" (slightly convex) as Larsons were.

But the questions abound: why, when, how? Here it is compared to a Knutsen harp mandolin of the same exact body design and Knutsen's own more delicate 5-course harp mandola:

Larson brothers 5-course harp mandola

Knutsen "Lower Bass Point" harp mandolin, c. 1908

Knutsen 5-course harp mandola, c. 1913

The instrument appears to be all-original, and is well-played (and sounds incredible). There is no indication that there was ever a label. It is ~33" in overall length, 16" at the widest part of the body, 4" deep, and has a scale length of 18-1/4". With ten strings (using standard tiple tuners) strung in pairs, the scale suggests a combination of tenor and octave mandola – though the nut and bridge grooves don't seem to display evidence of having been tuned in fifths. It has a spruce top and very nice mahogany stained back and sides. The 3-piece neck is maple with a dark center stripe, the headstock is veneered asymmetrically with mahogany and ebony (?). The inside back seam looks identical to my Dyer harp guitar. It reminded Bob Hartman more of early Larsons, suggesting an early 1900s build, though I imagine something around 1910.

This instrument doesn't remotely fit with the 1917/1918 Dyer plectral family, so I tend to think it must have been built after the Larsons' Dyer harp mandolin but well before they started designing their harp mandola and harp mandocello. The fact that it copies one of Knutsen's harp mandolin plantillas is obviously no coincidence, and the fact that Knutsen himself built a similar 5-course instrument tells us that there was some fascinating story here about the Larson's awareness of, and relationship with, Chris Knutsen. This thing sure sings (it can now be heard on my *Norwegian Wood* CD) ...if only it could *talk!*

Appendix E: Links and Resources

Harpguitars.net (authored by Gregg Miner)

"What is a Harp Guitar?"	https://harpguitars.net/history/org/hgorg.htm
"Dyer Harp Guitars"	https://harpguitars.net/knutsen/dyers.htm
"Dyer Dating, Serial Numbers and Timeline"	https://harpguitars.net/knutsen/dyer_dating.htm
"Dyers in the BMG Magazines: An Illustrated History"	https://harpguitars.net/sub/dyer_bmg.htm
"The Knutsen Archives"	https://harpguitars.net/knutsen/knutsen_home.htm

External Links

Larsons Creations (Robert C. Hartman's web site)	https://www.larsonscreations.com/

Resources & Further Reading

Chris Knutsen: From Harp Guitars to the New Hawaiian Family by George T. Noe & Daniel Most
Guitars and Mandolins in America by Robert C. Hartman
The Larsons' Creations by Robert C. Hartman
The Larsons' Creations: Guitars & Mandolins - Centennial Edition by Robert Carl Hartman
Floating Strings: The Remarkable Story of the Harp Guitar in America by Gregg Miner, edited by Carolyn Grant
Norwegian Wood companion book by Gregg Miner

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Erik Carter: p. 24 right
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Robert Corwin: p. 28
Nathan Frank: p. 26 top
Robert Hartman: p. 3, p. 4 bottom right, p. 5 top left, p. 8 right, p. 9 bottom right, p. 16 top right & bottom, p. 18-19 all, back inside cover, back cover lower left
Duane Hoffmann: p. 9 top 2nd from right
Tom Ketterman: p. 20-B, #402
Andrew Lardner: p. 25 bottom
Martin Leykomm: p. 10 bottom
Mandolin Brothers: p. 20-D
Kelvin Nesvog: p. 9 top 3rd from right
Ron Petit: p. 1, 15, 22 & 23: mandocello #102
Retrofret: p. 6 top right, p. 7 right
Mike Ward: p. 20-E
Mickie Zekley: p. 22 & 23: mandocello #601
Anonymous: p.6-bottom left, p.11 bottom left
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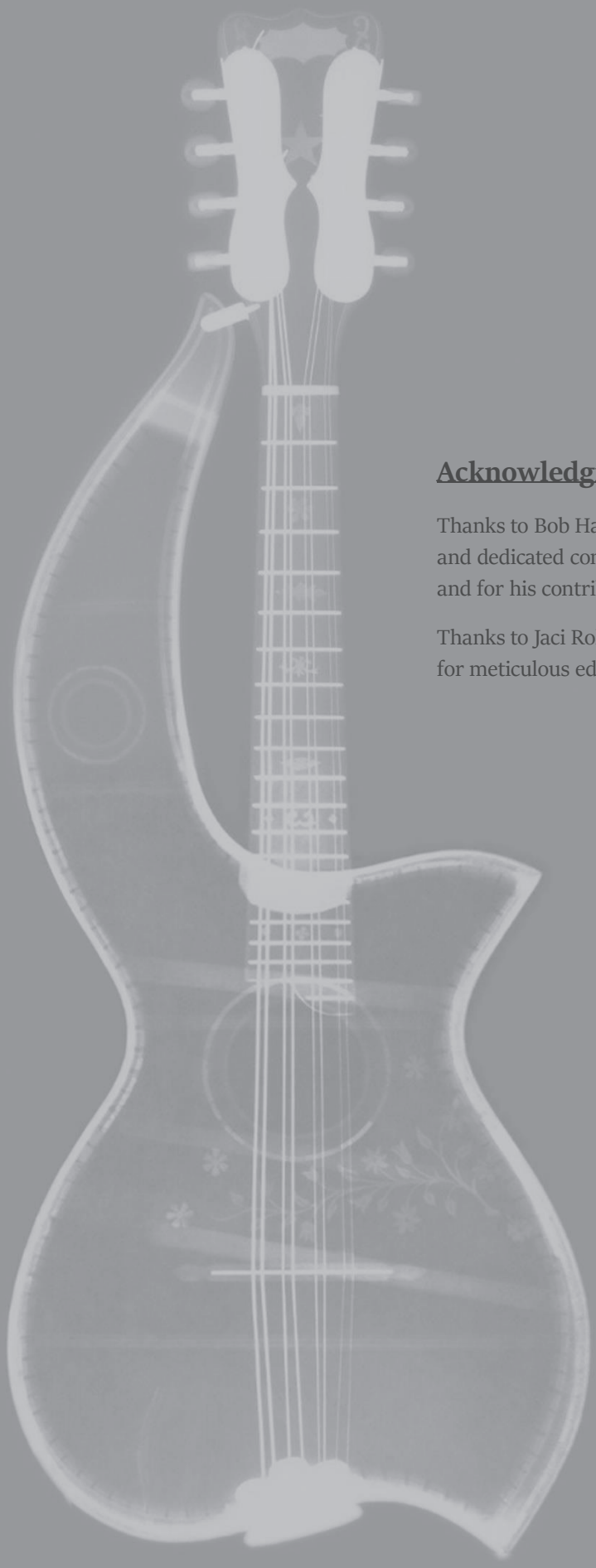
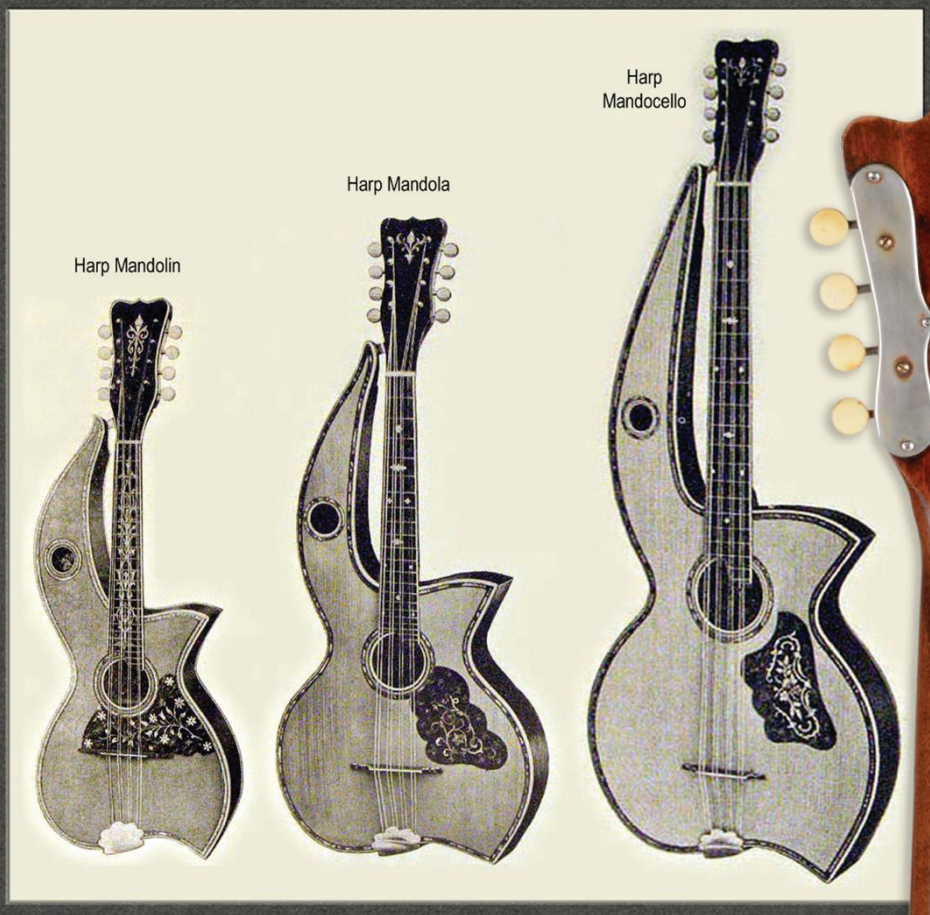


Acknowledgments

Thanks to Bob Hartman for his long and dedicated commitment to the cause, and for his contributions to this book.

Thanks to Jaci Rohr and Frank Doucette for meticulous editing and proofreading.


Harp Mandolin
Harp Mandola
Harp Mandocello