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Antique Flutes

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Louis Lot

Serial #136 and 186

Silver Flute with C Foot, Gold Embouchure

Restoration by Paul Rabinov

with David Shorey

Additional Comments and Measurements by Gary Lewis and Andrew Sturman



Louis Lot

#136-186, Made by Louis Lot, 1856-1857

Louis Lot

Silver flute with Gold lipplate
Serial number 136 on headjoint, 186 on body.

Introduction

Although Louis Lot, Clair Godfroy, Henri Villette, and Louis Dorus had together redesigned the flute, based on Boehm's ideas, already by 1850, nonetheless the silver flute remained elusive. By the time Lot moved down the street to #36 Rue Montmartre in 1855, he and Dorus, with Villette, had succeeded in designing a beautiful, functional, and tonally delicious silver bodied flute; fully the equal of their famous wooden instruments.

Louis Lot continued to work on the design of his flute. As Dorus began teaching the silver flute in Paris (outside of the Conservatoire), he and Lot continued to work together trying to better their instrument.

One of the lasting innovations was the gold lipplate, apparently first attempted on this flute, #136, in the fall of 1856, and likely given to Dorus for trial. This would have been Lot's 20th silver flute.

Please note:

All photographs through page 7 show the flute after the restoration by Paul Rabinov.



Louis Lot #136, made November 1856 (Shorey)
We believe that this headjoint was made as a trial for making a gold lipplate, and given to Dorus on Dorus' November 11, 1856 visit to the Lot shop (see record book entries on p. 6).



Louis Lot #136, with body numbered 186.
The flute was apparently delivered in these cases.



Louis Lot #136, with body numbered 186.

The headjoint with original gold lipplate rests in a separate case. Both Dorus and his student Taffanel liked to keep their headjoints in such a case for use during teaching. We believe that this is Lot's first gold lipplate, made for Dorus to test.

**Comments on the Playing of Louis Lot 136, by
Andrew Sturman, September, 2009**



Louis Lot #136, with body numbered 186.

The body mark is stamped rather than engraved. It is always possible that the stamp was wrong, and the eight should be a three, but we suspect that this body was supplied to Dorus in the spring of 1857.

An appreciation of Louis Lot 136/186, silver with a gold lip, attributed to original ownership of the famous Dorus.

Words don't generally work very well for describing sound, and they don't work well for describing the feeling of making sound, such as playing a fine instrument. Having said that, I want to say that this flute is especially difficult to find words for; it eludes terminology. It is hard to even say that it is loud or soft, dark or bright. It is all those things, oddly. It defies my attempts at description.

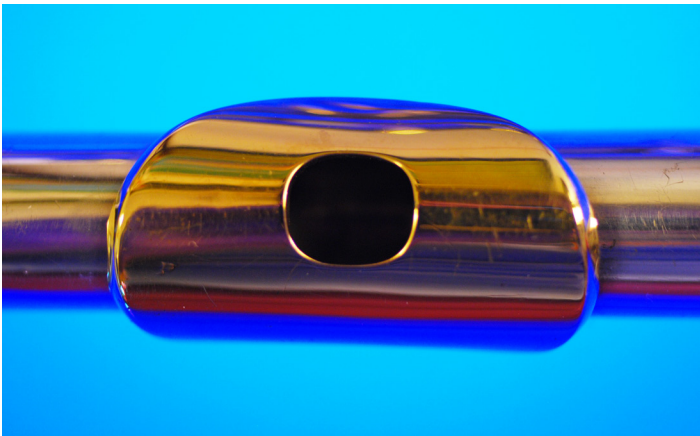
This flute is like a "flute stem cell"—from this flute and the few others like it, came all our other flutes.

I spend my time immersed in the world of what we call Old French Flutes, and still this flute is a revelation. How did Lot get the tube so thin, so resonant? How does he get an embouchure hole to work that has absolutely no undercutting, is so unbelievably low, is so nicely shaped, and so much smaller than what came later? How can the keys be this beautiful, and so light to the touch, so small to the size of the tone holes themselves? In every way, this flute is remarkable.

Looking at its delicacy, holding its extreme light weight, feeling its jewel-like keys in your hands, you would think it would have a reserved or small sound, but it does not. It is light, but also vibrant and large. The sound is both antique and somehow also electric-charged. It Goes. Perhaps because the tube is so thin, and so good, it is effortless to make tapers. Tapers can go forever on this flute. Combining the ease and confidence with which you can play tapers, with the energetic go of the instrument, what results is an extremely expressive combination, full of both wood and silver colors, capable of extreme shadings of expression.

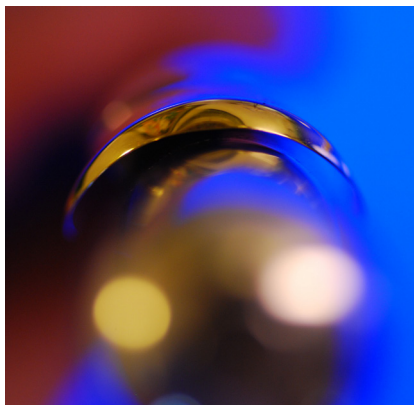
This is a flute for artist playing.

My response while playing it, or hearing



Louis Lot #136, with body numbered 186.

The gold lipplate is made with many characteristics of Boehm's gold lipplates, according to the flute scholar Gary Lewis, especially including the steep, almost vertical wall angle. Gary suggests that Lot must have had a Boehm flute at hand when he designed his new gold plates. Boehm had listed only eight flutes with gold lipplates by November of 1856 (he probably made more without mentioning it), and it is interesting to wonder which of these Lot may have seen.



Louis Lot #136, with body numbered 186.

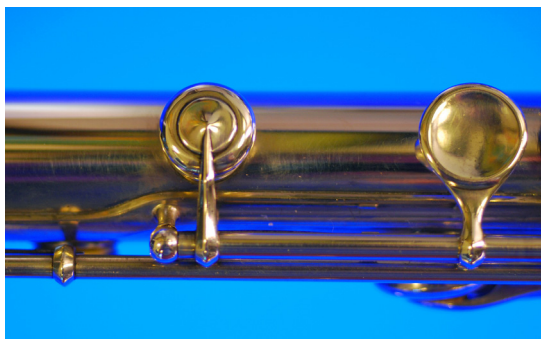
Louis Lot used the wall angle of Boehm, but he preferred his own shape. Here we see the even surface, with none of the saddle that Boehm preferred.



Louis Lot #136, with body numbered 186.
 Louis Lot had designed the Dorus G# originally with Dorus back in 1836 or so. This key began to be replaced by the side G# after 1860.



Louis Lot #136, with body numbered 186.
 Lot had to completely redesign the keywork when he left Godfroy's, yet he retained the original mechanics, including the shoulder clutches seen here.



Louis Lot #136, with body numbered 186.
 The C# and touch, with the one-piece strap visible as it runs down towards the trill keys.



Louis Lot #136, with body numbered 186.
 The left hand mechanism, with the shoulder clutch for Bb. This system was a far cry from the old vaulted clutches of yesteryear.



Louis Lot #136/186, Restored by Paul Rabinov

others play it (as has been my pleasure over the last few days) has been one of deep respect for its maker, for its times, for the players who asked for an instrument that could do what this can do, and sadness at what has been lost in the pursuit of broader and inevitably coarser instruments.

This early Lot is, as a friend said after playing it, a time machine, bringing us back in a visceral way to a time when the ultimate aesthetic refinement meant everything. It could be said generally of the early great French flutes (as well as the best early American flutes, and a few others, such as class Rudall Carte, etc.) that there is an integrity

in the way they are made, as well as an integration of the way they are made with the way they were being played and the way composers were writing for them, that is beyond anything that we know today. I believe that to be absolutely true. As it is true regarding those flutes, it is especially true regarding this early Lot.

Andrew Sturman
 New York, Sept. 25, 2009



Louis Lot #136, with body numbered 186.

The footjoint, like much of this flute, shows signs of Louis Lot's continuing process of experimentation and development. Although the keys and toneholes are all the same size, the tubes actually get thicker with each part. The headjoint is c. .010", the body c. .012", and the footjoint is .014". The left hand side of the teardrop has been shaved, to miss the post on the body, thanks to the slight shortening of the body tenon.

S873 Louis Lot 136, 186 Paris
France

Engraved on headjoint: L.L. / LOUIS-LOT / PARIS / 136 / BREVETÉ. Stamped on body: L.L. / LOUIS-LOT / PARIS / 186.

The headjoint is numbered 136, and the body of this flute is numbered 186.

Hallmarks

There are no hallmarks on this flute, which is good, because Louis Lot never used hallmarks, and never registered one for his shop.

No marks visible under keys.

Material

This beautiful flute is made of silver with gold lipplate. The springs are of steel. The corkscrew is of wood.

System

This flute is Louis Lot's Model 5, silver flute with C foot. This instrument is also fitted with a gold embouchure. Originally with B trill, this flute was long ago converted to Bb trill by pinning the tail to the steel and trimming the foot to the thumb key off the same tail.

This flute has the Dorus G#.

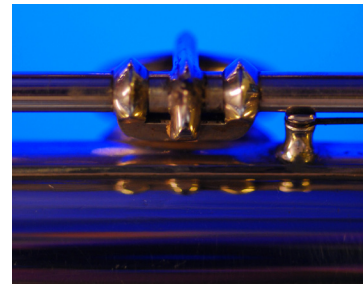
Date of Manufacture

There are two possibilities regarding manufacture; one, the headjoint was made earlier than the body, and the numbers are correct, or two, the head or body are misnumbered (the 3 and 8 are easily mis-engraved), and the flute was delivered at the same time.



Louis Lot #136, with body numbered 186.

The rear of the footjoint (above and below) shows the ground breaking design of the Godfroy/Lot workshop. This footjoint design was completed by 1851 at the latest, and Lot continued to use it to his retirement. Apparently within months, Villette had eliminated the footjoint backclutch (below) in favor of his pinless footjoint design, still in use today. The tail on the low C key has been replaced (at left above).



Louis Lot #136, with body numbered 186.

Lot's teardrop D# changes shape slightly from flute to flute, and was probably hand shaped. The graceful C# touch is carved out of three pieces of silver soldered together.

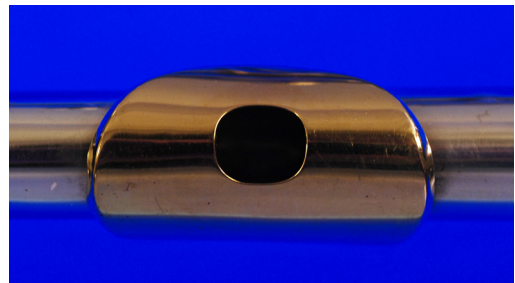


Louis Lot #136, with body numbered 186.

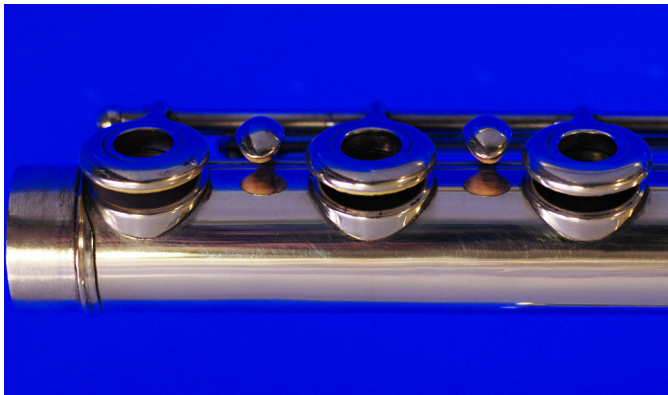
The workmanship on this flute is like jewelry. The trill touch (left) shows Lot's classic domed keywork, and has been redirected from the thumb to the Bb key. The crown (center) already shows Lot's three part design, and the silver-tipped wooden corkscrew coming out the top. The lower tenon (right) has been shortened by one millimeter, bringing the ring right up against the post and tone hole.



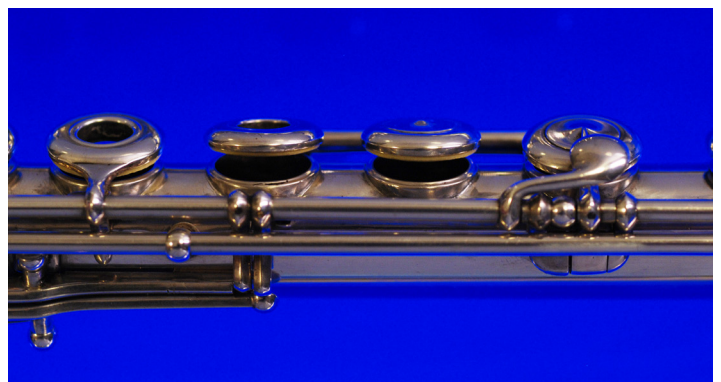
Louis Lot #136, with body numbered 186.
The rear of the Dorus G#; an elegant solution.



Louis Lot #136, with body numbered 186.
This appears to be the first gold lipplate that Louis Lot made. We believe that he gave it to Dorus for trial in November, 1856, just eleven days after repairing a silver Flute by Boehm, owned by a student of Dorus'.



Louis Lot #136, with body numbered 186.
Lot's toneholes are elegant and pristine, the latter thanks to the fine work of Paul Rabinov.



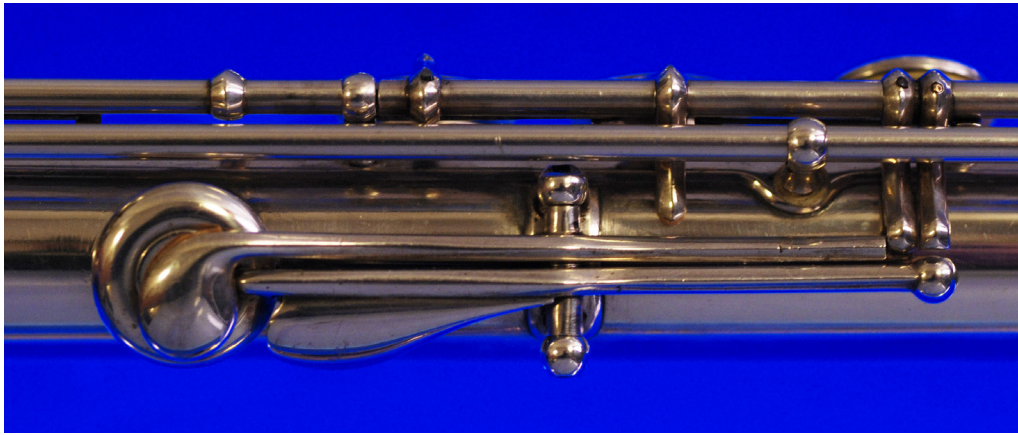
Louis Lot #136, with body numbered 186.
The trill key used to lift the tail under the thumb. The key has been pinned to the steel connected to the Bb, and the bottom end of the tail trimmed, changing the trill from C (as Lot called it) to Bb.



Louis Lot #136, with body numbered 186.
Lot's beautiful keywork is seen here with the graceful cups, and the aristocratic trill touch.



Louis Lot #136, with body numbered 186.
The Bb cup, with Lot and Godfroy's beautiful pointed arm.



Louis Lot #136, with body numbered 186.

Although Rockstro claims that the basic design for this thumb key with the Bb touch came from Briccialdi, nonetheless no one else at the time appears to have known that story. Boehm refers to this as the thumb key of Lot. The elegance comes from Lot's time with Godfroy.



Louis Lot #136, with body numbered 186.

The bold yet graceful arm on the low C footjoint key.

Louis Lot #136, with body numbered 186.

The backclutch is the heart of the Godfroy/Lot mechanism, and the reason everyone else copied them. The shape of the sides changed over time, and between the two makers. Godfroy gave his more hips, while Lot, as seen here, was more simple and understated, yet graceful and elegant.



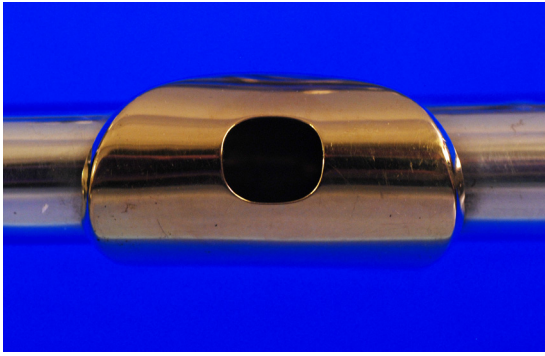
In the record books, there are only two silver flutes listed in the three months between #121, Nov. 11, 1856, and #163 (the first mentioned with gold embouchure), made Feb. 19, 1857. These two flutes are not numbered in the books. The first, made Dec. 12, 1856, was made for Henri Altés, and was his first silver flute (effectively ending the era of Tulou). The second, made January 14, 1857, was made for St. Angelo of Paris, and was fitted with a long key for the low D#, operated by the left little finger, and could not be this instrument.

Curiously, on Nov. 11, Dorus came into the shop with two wealthy students, Prince Heraclius of Georgia, and Pedro de Castillo of Havana. Lot records in his book that he performed a "double une tete de flute" for 25F for Dorus, which was a typical alteration on wooden headjoints. The Prince paid cash for a cylindrical wooden flute with silver keys, number 143 in the book, and Pedro bought a silver flute with C foot, #121 just mentioned.

Louis Dorus clearly had a special account with Louis Lot, which does not appear in Lot's list of accounts at the end of his record book. Dorus was off the books because he was working with Lot to perfect the silver

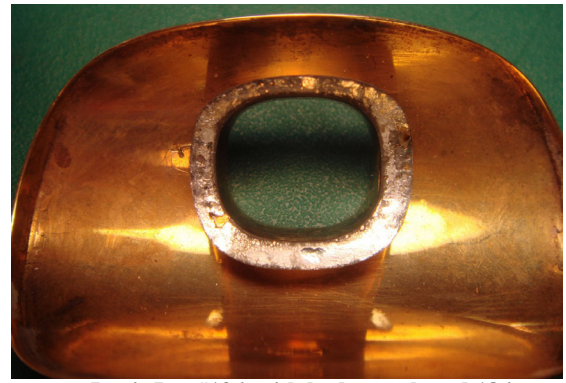
flute. It seems certain that Lot would have given Dorus new models to try first. It is highly possible that Lot gave Dorus the headjoint 136 with a gold embouchure to try out. This would explain why the headjoint is in a separate case, although Dorus would have liked a case for his headjoint since he probably kept his head in his coat pocket during teaching, as Taffanel did later.

Dorus shows up at the Lot shop later on April 23, 1857, just a few days after flute #185 (the third listed with a gold embouchure) had been delivered on its way to Chile (the flute is now in New Jersey). Lot writes "Doit Dorus á Paris / Une ("plaque"-erased) Embouchure en Or. 60F." It is entirely possible that Lot gave Dorus the body #186 at this time, to go with the gold head from earlier. Lot's record book entries for Dorus are always a bit mysterious. Dorus never seems to come in to make any payments on his account. The fact that the record of April 23, 1857 is an uncertain record, since the word "plaque" is erased, and the price charged to Dorus for the gold lipplate does not include the usual mounting charge, suggests again that Dorus had a special relationship at Lot's that is not reflected in the record books.



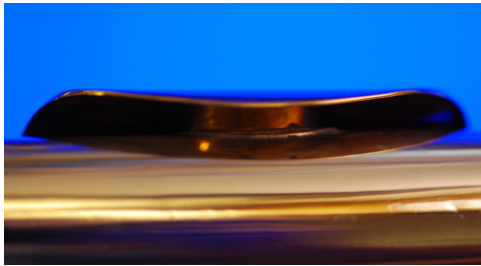
Louis Lot #136, with body numbered 186.

As far as we can tell, this is the first gold lipplate that Louis Lot made. We believe that Lot responded to a gold lipplate on a flute by Boehm brought in for repairs by "Crist of New Orleans", a student of Dorus'.



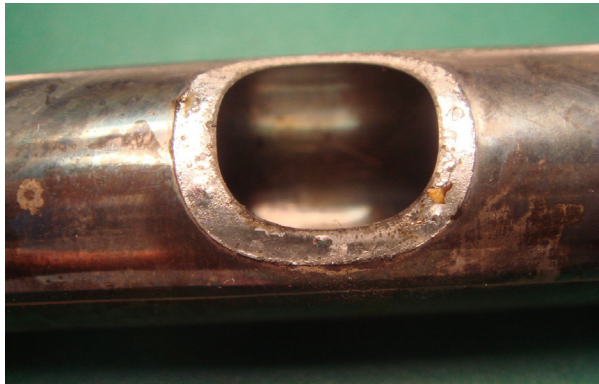
Louis Lot #136, with body numbered 186.

Above we see the bottom of the lipplate with the flange exposed. Below, we see that the flute was apparently bumped right on the lipplate, causing a slight disfigurement on the bottom of the upper side-wall.



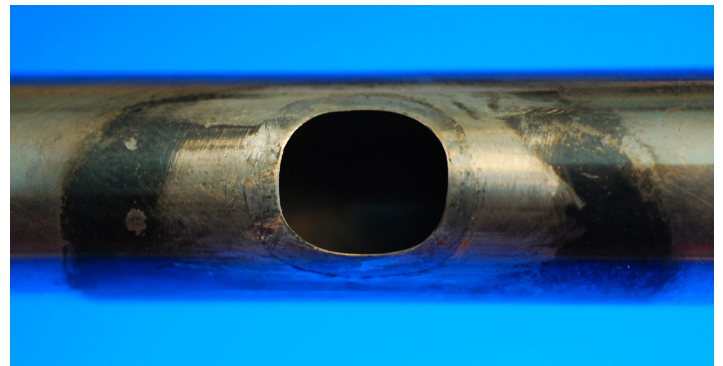
Louis Lot #136, with body numbered 186.

The lipplate shows no solder around the flange, and no sign of having been resoldered. Unfortunately the original solder had deteriorated, and needed to be redone.



Louis Lot #136, with body numbered 186.

With the lipplate off, it is clear that the hole is clean and symmetrical, and has not been recut. The solder is very cleanly demarcated, and the original job was very skillfully performed.



Louis Lot #136, with body numbered 186.

The headjoint tube with the old solder removed also shows the very clean lines of the lipplate flange, again with no sign of a previous lipplate. We believe that this flute was built with this lipplate.

Thus it is completely possible that this flute was given to Dorus by Lot on the two separate visits of Dorus over the winter and spring of 1856-1857.

One other possibility is that this instrument is the complete original flute #136, and the stamp was applied incorrectly on the body.

Even less likely is the possibility, mentioned earlier, that #136 was Altés' first silver flute, and the lipplate was changed later (Altés had a new gold lipplate and headjoint made for his flute of Dec. 12. 1856 on May

22, 1857). The record for Altés shows that he traded in his headjoint, rather than change the lips on it, and the number 186 does not fit anywhere, which makes this scenario less likely.

In fact, there is no sign that the lipplate on headjoint 136 has been changed. The hole in the tube is perfect, and does not appear to have been adjusted to fit this lipplate. This suggests the likelihood that #136 is indeed the first gold lipped head, and Lot gave it to Dorus for

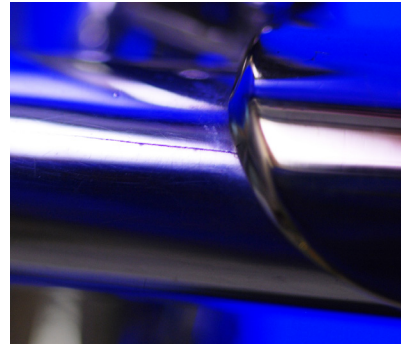


Louis Lot #136, with body numbered 186.

This extraordinary headjoint is at the core of the beautiful sound available from this flute.

When Louis Lot began his own business he had only just begun using lipplates, rather than barrel embouchures, based on the two remaining metal flutes from the Godfroy shop before Lot left. This was his 20th metal headjoint made since Lot opened for business just 20 months previously.

The metal is very thin, at .009”-.010”. The silver is extremely resonant. We believe that Louis Lot had figured out how to work the silver to make it vibrate, and give his flutes their extraordinary tone. No other French flutemaker, in fact no other flutemakers at all, have ever learned Lot’s secrets. Even Lot’s former partner Godfroy was never able to make silver flutes with the sublime tone of Lot.



Louis Lot #136, with body numbered 186.

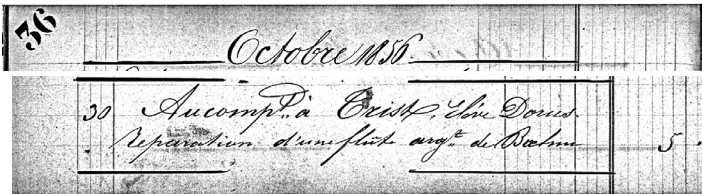
The bump on the lipplate caused the silver tube to open a bit, just where the head cork ends. We have not attempted to resolder this, and have simply sealed it with wax.

trial. Thus our position is that this flute is likely an off-the-books instrument for Dorus.

The Record Book

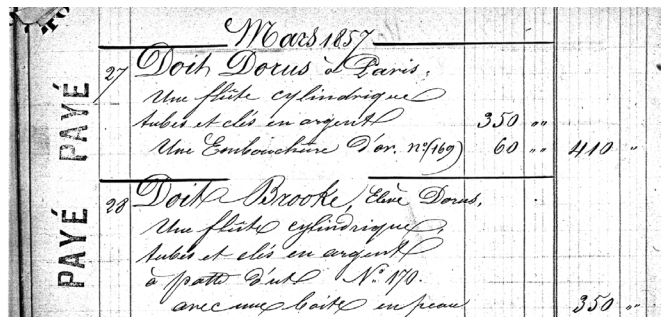
Often the Louis Lot record books pose more questions than they answer. Since this instrument is not mentioned in the records, nor is there an unnumbered flute when this would have been made, we must try and reconstruct events that occurred between the lines. This can trap us in our vision, as well as offer ideas. The dual entries for Louis Dorus at the times that both numbers of this flute fit Lot’s unusual sequence is a tantalizing suggestion that this instrument, obviously made for a Professor of the flute, was part of the group of flutes that must have existed comprising the experiments that Louis Lot made as he developed his system and methods. Lot had been working with Dorus since the 1830’s to make better flutes, and the record book suggests that this might well have been among those Lot made for Dorus to work with. Dorus was the principle, if not the only, teacher of the silver flute in Paris for the first years of its introduction. It is our belief that the headjoint was originally made with the gold lipplate, and that this is the first such headjoint that Louis Lot made. The slightly smaller lipplate on #163 is explained by the desire of the owner, Crist of New Orleans, to have a flute like his Theobald Boehm flute, which Lot repaired on October 30, 1856, listing Crist as a student of Dorus. We believe that Dorus received this headjoint, #136, in November of 1856, and that Crist witnessed the gold lipplate during lessons, ordering his own on February 19, 1857.

Condition



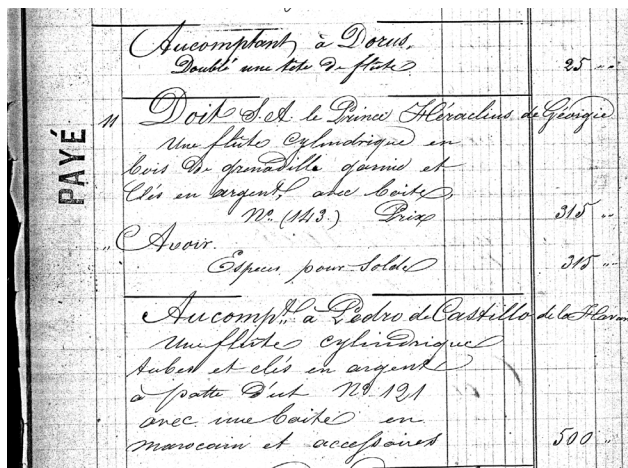
Louis Lot Record Book, page 36, Oct. 30, 1856.

Crist, a student of Dorus, brings in a silver flute by Boehm for repairs. Since the embouchure wall of #136 is nearly vertical, like Boehm's cuts, we suspect that Lot had a Boehm flute with gold lipplate in hand at this time. Only 8 flutes with gold lips had been listed by Boehm, one of which went to Antoine Sacchetti (others were likely made). It is possible that Crist, who is not listed in Boehm's record books, had purchased his flute from the teacher Antoine Sacchetti, who had bought Boehm's #31 with gold lipplate in July of 1849. Attempts to trace this Crist have found the family in New Orleans, but so far no memories of a flute-playing ancestor. Crist's Louis Lot, #163, is now in the Miller Collection.



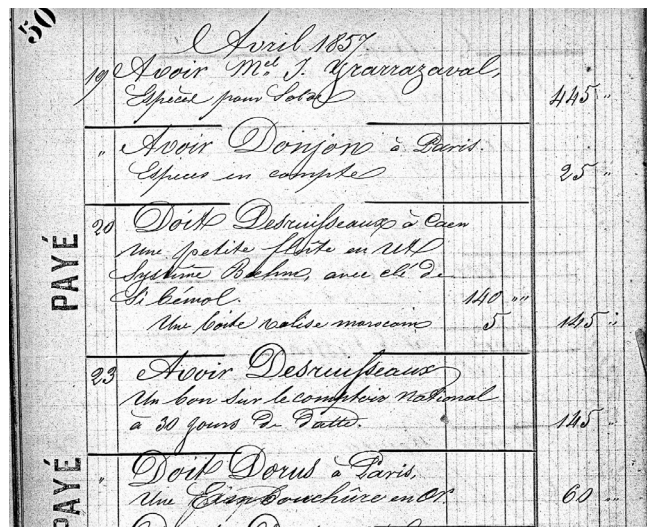
Louis Lot Record Book, page 48, March 27, 1857

Dorus would almost certainly have had one of Lot's new gold lipplates before his student Crist. This number, (169), seems gratuitous. This flute is not known, and was not brought back to Lot's through 1864. It seems possible that Lot is here referring to the whole flute 136/186. Incidentally, the next page has another flute #170 (see record below 169), showing Lot's unusual relationship to numbers.



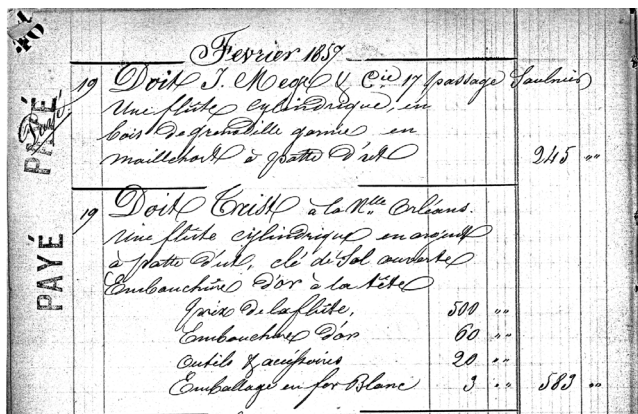
Louis Lot Record Book, page 38, Nov. 11, 1856.

Dorus comes in to the Lot shop with two wealthy students, Prince Heraclius of Georgia and Pedro de Castillo of Havana. Louis Lot has had eleven days to ponder the gold lipplate of Boehm. It is very possible that Lot made a headjoint with gold lipplate for Dorus to try. We suspect that Lot wrote, "Doublé une tête de flûte", which means adding a silver lining to a wooden head, rather than the more expensive action of giving a silver head with gold lipplate. We believe that this visit of Nov. 11, 1856 is the day on which Lot gave Dorus the headjoint #136, which fits between the numbers 121 (Pedro's flute) and 143, the flute for Prince Heraclius.



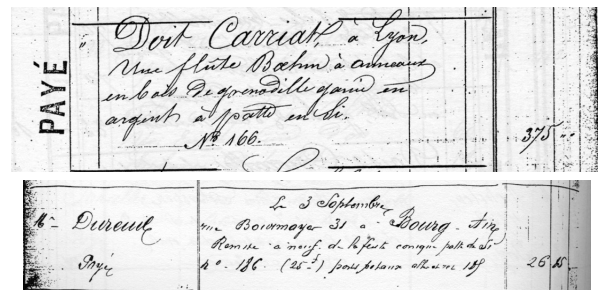
Louis Lot Record Book, page 50, April 19-23, 1857.

This is where serial #186 would have fit in. The flute for Yarrazaval is #185, and was recently discovered by Mark Leone. Dorus came into the Lot shop, but the action they took was not properly recorded. It appears as if Lot was trying to think of something at all when he wrote first "une plaque" en or", and erased it to read "Une embouchure en or".



Louis Lot Record Book, page 46, Feb. 19, 1857

Nearly four months after having his Boehm flute fixed, Crist orders a new Louis Lot flute, patterned after his Boehm flute, with an open G#, and a lipplate with nearly straight walls. This flute is Lot #163, and is in the Dayton C. Miller Collection. Gary Lewis has measured this embouchure and finds it very close to the Boehm dimensions, and just slightly larger at the edges than the lipplate for #136.



Louis Lot Record Book, volume one page 51, May 1, 1857, and (below) volume two (E. Barat) p. 132., September 3, 1859. These entries describe another flute #186, a conical Boehm flute with B foot. Louis Lot records it as #166.

Our conclusion is that the record books cloud a simple event. Louis Lot chose to make a gold embouchure after seeing one of Boehm's at the end of October in 1856. Eleven days later he gave his first headjoint to Dorus to try, and followed that up with the rest of the flute in the spring. We suspect this was partial payment to Dorus for his cut from sales to his students. Dorus' entire account is off the books, so Lot writes bits of nonsense to record these transactions.

Although all of our evidence is circumstantial (other than the flute), and Lot's records are notoriously inaccurate, we are happy with our speculations.



Vincent Joseph van Steenkiste, genannt:
Dorus.
(Quelle: Fétis)

Flötenvirtuose, geboren am 1. März 1812 zu Valenciennes.
Am 31. Januar 1822 wurde er Schüler des Pariser Konservatoriums und erhielt von Guilloü Flöten-Unterricht.
1826 erwarb er beim Wettbewerb den zweiten Preis und 1828 den ersten Preis für Flöte.
Bis 1833 spielte er die alte Flöte, überzeugte sich aber bald von der Ueberlegenheit der durch Böhm umgestalteten Flöte, da er einsah, dass man auf derselben in allen Registern mit reiner Intonation und Leichtigkeit blasen konnte und viele Triller, die vorher unmöglich, jetzt ausführbar waren.
D. zauderte daher nicht, die Böhmflöte gründlich zu studieren, und seine Ausdauer verhalf ihm zu der grössten Vollendung, die man sich denken kann.
1828 bis 1830 war er am „Théâtre des Variétés“, 1835 trat er in das Orchester der „Grand Opéra“ ein, in dem er bis 1866 als erster Soloflötenist wirkte.
Dorus war auch Mitglied der Gesellschaft der Konzerte des Konservatoriums und der Musikkapelle des Kaisers; 1858 folgte er Tulou als Flötenlehrer am Konservatorium zu Paris.
Im Jahre 1866 wurde D. Ritter der Ehrenlegion.
Er komponierte viele Werke für die Flöte und starb am 9. Juni 1896 zu Etretat bei Paris.

Louis Dorus

Dorus had worked with Louis Lot, V. H. Godfroy, and apparently already with Lot's eventual foreman Henri Villette, in the 1830's to design a French version of Boehm's 1832 system flute.

In 1847, Dorus worked with these same men again to create a beautiful metal cylindrical flute. Dorus preferred the wooden version for his playing, and the two existing Godfroy metal flutes from the early 1850's suggest that they had not yet figured out how to make a resonant tube.

Over the years, Dorus continued to work with Louis Lot to modernize their flute. The gold lipplate on Lot #136 appears to be the first gold lipplate made by Louis Lot, and we believe that Lot gave it to Dorus for his comments.

Since this is such an early example of the Louis Lot silver flute, it is important to determine the originality and condition of the instrument.

The Headjoint

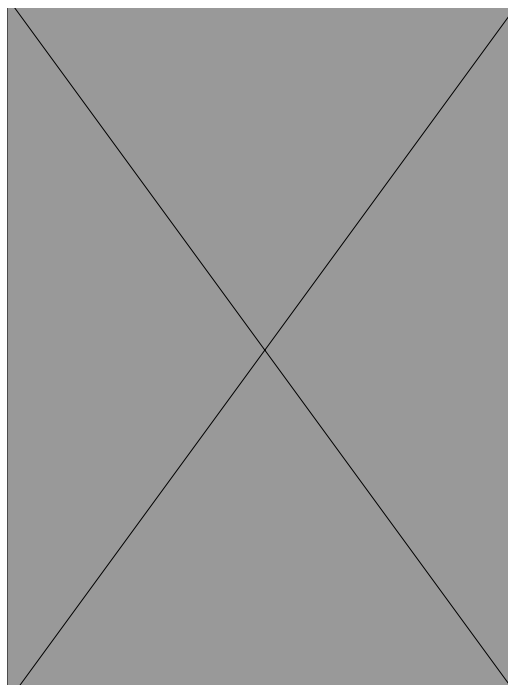
From the top of the flute we find the original crown and cork screw arrangement, with a threaded wooden screw protruding through the central hole of the crown. This entire arrangement is in excellent original condition, although the wooden screw is chipped inside, and the cork is worn and will be replaced during restoration.

The crown rests upon the typical long female section of the screw joint used by Lot in the early days. The ornamental ring on the crown is in excellent and original condition.

The lipplate is of great interest on this flute. Louis Lot does not record a gold lipplate until flute #163, made in the spring of 1857. One presumes that Lot experimented with different lipplates before bringing them to market. This headjoint, #136, may well have been made for Dorus to try it out, and this could therefore predate the first commercial gold lipplate three months later. We have removed the lipplate for resoldering, since the original solder joint had failed. We find absolutely no sign of a previous lipplate, especially since the silver lipplates had larger flanges on the base and one would hope (although without certainty) to see some sign on the silver tube.

The lipplate itself tells several stories.

The very bottom of the leading edge has been slightly

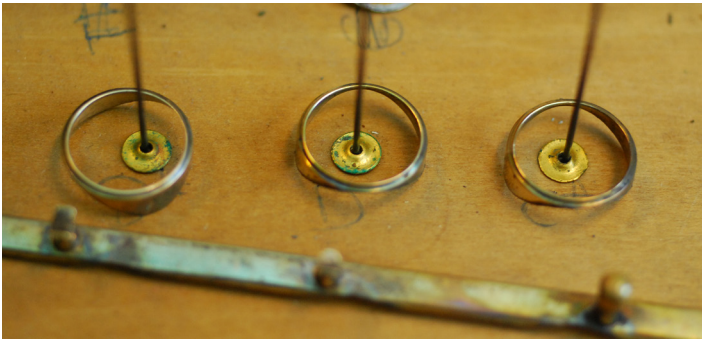


Antoine Sacchetti (left) with Theobald Boehm

Sacchetti bought Boehm's flute #31 on July 1, 1849, which he is holding in this photo. In 1854, Sacchetti bought three flutes from Boehm in the "Nach Godfroy" system; thus he was one of the few flute teachers in Boehm's books with flutes to spare. It is just possible that Lot repaired an old flute of Sacchetti's in October of 1856, and inspired the gold embouchure on his flute #136. By 1856 Boehm used gold embouchures on most of his flutes, so any of his instruments could have been bought by Crist. Unless we find Crist's passport, we will not know.

undercut at a later date.

The silver tube is very slightly undercut, as are all of the tone holes. This slight undercutting was also seen on Louis Lot #325, restored here last winter. The workmanship is perfect on the tubes, and appears likely to be original from the Louis Lot shop.



Louis Lot #136, with body numbered 186.

The footjoint tone holes with their gilt pad washers. Notice the raised middle, sort of like a mini symbol. This was classic Lot, from the very early days.

The upper (left hand) side of the lipplate wall shows signs of having been bumped, and a slight disfigurement can be seen in the chimney wall. There is also a strain and slight split on the headjoint tube at this point, which would verify the bump theory. This, and the shortened body tenon, are the only enduring damage to the flute.

There is no ring on the headjoint, however there is a full ring on the barrel, so the headjoint was built without a ring originally.

Comments from Gary Lewis

The Louis Lot scholar Gary Lewis of San Francisco

has measured this flute and many other Louis Lot's. Here are Gary's comments on the headjoint measurements:

"The distance from embouchure to A tonehole is 316.63mm and the distance from embouchure to tip of the head is 141.36. As a comparison, Lot 163 has 315.48 and 140.0. Lot 208 wood has 316.77mm emb. to A distance. As you can see, the emb. to A distance for 186/136 is essentially the same as these others, and the emb. to tip distance is similar to Lot 163, so my conclusion is that the head is uncut. Also, note that when the head is placed in the case with the embouchure centered in the cutout area there is almost as much extra space at the crown as at the tip. The construction of the upper ferrule on the head receiver is the same as #163, which also has no ring on the head, so I think the 'lack' of ring on the head is also original."

Here is Gary Lewis on the tube size:

"The tubing of #136 is very close to the thickness of #163 -- perhaps just a bit thicker. I measure ~.010" at the top, and .009" at the tip for #136. #163 measured .008-.009 at the top and .006-.007 at the tip."

Needless to say, these are thin walls.

Gary Lewis measured the lipplate:

"The lip plate of #136 is extremely interesting. The construction is much like that of #163, but the size is the same as Lot 325. The length of #136 plate is 45.86 (with ears); 43.33 (without ears); and 43.92 measured on the inside. The length



Louis Lot #136, with body numbered 186.

Here we have the parts from the Louis Lot flute that are removed for resoldering. All of the tone hole rings are the same size, through the footjoint. The body is the top row, followed by the thumb key and trill holes, under which are the three footjoint tone hole rims. The straps are the footjoint on top, the thumb key, the Dorus G#, and finally the full body strap. The footjoint socket lies below, with the steels and the screws.

of #325 plate is 47.22 with ears; 43.25 without ears, and 43.83 measured on the inside. These are virtually identical except for the measurements with ears, which differ because of the change from Boehm-style to Lot-style ears. By contrast, Lot 163 plate length measures 42.74 with ears--much shorter than either 136 or 325, but almost exactly the same as Boehm embouchures: Boehm 38 is 42.97 and even that extremely late B & M head on the R, R, & Co. #1905 I have here measures 43.15--slightly more because the material is thicker."

Gary measured the wall angles,

"The front wall angle of #136 is very close to 0°. I measure -.5° at the top, 0 to .5 in the middle, and ~1.5 at the "bottom", just before the wall starts a steep roll-off during the last 1.5-2mm, ending at around 13°. This is the only wall of the embouchure to show this steep roll-off. The embouchure does not appear to have been resoldered."

I am calling Gary's "roll-off" a later undercutting. Note that Gary Lewis finds no evidence that the lipplate has been changed.

In summary, the headjoint is completely original except for a bump that slightly dented the upper wall of the lipplate, leaving a small split in the tube, and an

uncertainty over the taper at the very base of the chimney (which Gary Lewis calls a "steep roll-off"). The gold lipplate appears original,

The Body

The body of this flute, numbered #186, sits in a separate case from the headjoint. This makes sense if the flute was used by a Professor for teaching, since the headjoint would have been kept in the teacher's coat pocket for use in class. The separate cases also lend credence to the notion that Lot may have provided this body to Dorus during either the November 11, 1856, or the April 23, 1857 visits, the latter occurred just seven days after flute #185 was delivered.

The body has been subjected to poor restoration work in the past. The tone holes were resoldered very sloppily, and several did not line up with the holes in the tubes. It is possible that this was a misguided attempt to retune the flute (especially since this flute was discovered in England). Since the toneholes themselves were not altered, and it is possible that they were off-center through sloppiness, Paul Rabinov has soldered on the tone hole rims to fit the holes, as they were originally.



Louis Lot #136, with body numbered 186.

Here are the keys after cleaning. Virtually this entire design was created by Godfroy and Lot between 1847 and 1850. Although little of this system involves new, patentable inventions, nonetheless no one else had put all of these ideas together in such an elegant and functional design. Practically all flutemakers have copied the principle elements of this design ever since.



Louis Lot #136, with body numbered 186.

On the left we see the extraordinary precision in the cutting of the spring steel for the thumb, including a little tail that inserts into a hole in the thumb key, to prevent the spring from swinging. In the center we see the classical design of the Louis Lot crown, or capital of this lovely fluted column. On the right the hand-sculpted D# key, with a little filing on the side when the tenon was shortened. (Photos by Rabinov)



Louis Lot #136, with body numbered 186.

Here we have the Dorus G# parts (middle and left). The spring tip just visible in the middle photo fits into the shoulder on the left, causing the G# key to close with the G key, yet still be able to open when the touch is pressed. On the right we see the F# key with the central backclutch spade, and the tapered steel which fits into the kingpin bushing. Everything here is an original Godfroy & Lot design. (Photos by Rabinov)



Louis Lot #136, with body numbered 186.

This is the bottom side of the low C# touch. This touch is one of the most visible spots on the flute for personal designs of the maker. Louis Lot varied his shaping from flute to flute. We can see here that this piece is hand carved from three pieces of silver soldered together. Below we see this piece from the front. (Upper photo by Rabinov)

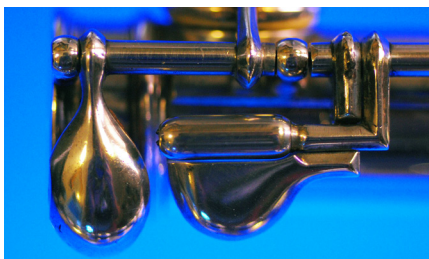
The bottom tenon of the center joint appears to be a millimeter shorter than originally, and the bottom ring is nestled up against the tone hole to accommodate this. This tenon is .95 mm shorter than the tenon on flute #163 (thanks to Gary Lewis' measurements).

The body tube thickness, as measured by Gary Lewis, is .012" at the lower tenon.

All of the rest of the center joint is completely original and in excellent condition. The tone holes are all slightly undercut, as was done on all of the wooden flutes. Although Louis Lot later abandoned this practice, it appears original on this flute, as it does to a lesser degree on his flutes for several years.

The Footjoint

The footjoint on this flute is also very interesting. The tube is thicker than the body (which is thicker than the head), at .014". The inside of the tube shows that the maker had some difficulty soldering the seam on this thicker tube, and the silver was overheated, causing a texture to form inside next to the seam.





Louis Lot #136, with body numbered 186.

The old pads for the right hand show that the last technician to resolder the tone holes placed them off center from the holes, which are unchanged, nor did he move the keys. Thus the marks on the pads from the rims are well off-center. We have replaced the rims neatly onto the tone holes.

This footjoint is several millimeters shorter than #163.

The D tone hole apparently was not resoldered by the incompetent repairman, and shows the extraordinary skill of the maker, including the delicate undercutting of the tone hole. Curiously, the seam on the footjoint is not under the strap, as was certainly the practice later. Apparently this body contained some experimentation by Lot, like the gold lipplate on the headjoint, and would explain why this entire instrument is effectively “off the books”.

Pitch

The pitch of this flute appears to be standard French pitch pre-1859, or A=446. Gary Lewis pulled the joints out and played it at A=440.

Sounding length

The sounding length is 580 mm.

Embouchure

The embouchure measures 11.71 x 9.98

Weight

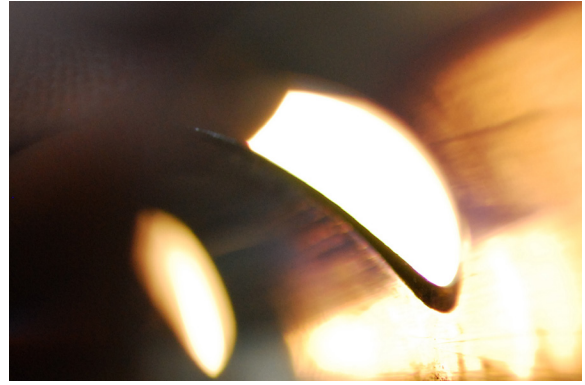
This flute weighs a scant 306 g.

Case

The instrument comes in two cases; one for the body and foot together, and one for the headjoint to be kept separately, as in a coat pocket.

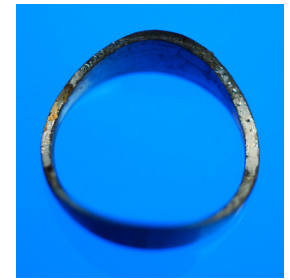
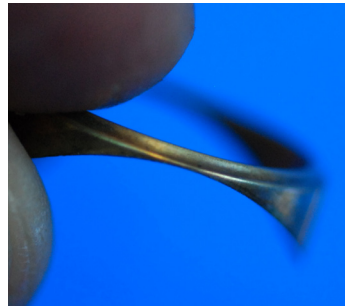
Condition and Restoration

The flute 136-186 is in excellent overall condition. The principle requirement for restoration is the need for all of the soft solder joints to be redone, as is usual for these instruments. Several characteristics of the last



Louis Lot #136, with body numbered 186.

The D# hole on the footjoint gives a good view of the undercutting that chamfers the tone hole into the bore. Although this was absolutely necessary on the wooden flutes, we are not sure if this undercutting is part of the reason this flute is so loud and rich of tone. At any event, Lot eased off on his next flutes, cutting only a small chamfer. Eventually he ceased undercutting the tone holes at all.



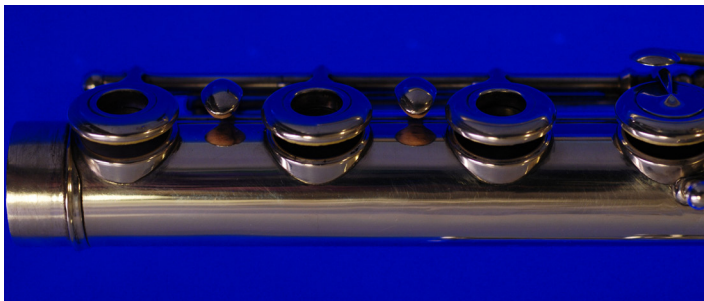
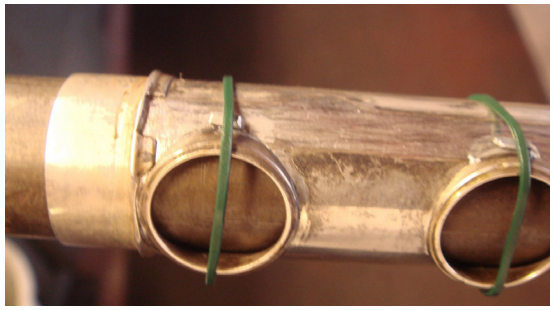
Louis Lot #136, with body numbered 186.

The tone hole rims are amazingly delicate, with barely any silver to spare at the top of the arc (left). The underside shows bits of tarnish where the old solder had failed (right).

resoldering, performed many years ago, will be undone. For example, the tone hole rims are not uniformly centered on the holes in the flute tube. The flute tube holes have not been altered in any way during this process. The most evident off-center rims are the thumb key and the two F holes. The thumb rim is shifted down the flute, and the F holes both up. The net result of these shifts will be to flatten the notes, since the hole is made smaller, regardless of the direction the rim is moved. The workmanship on this solder job is very sloppy, and we consider these tone hole shifts to be unintentional, especially since the key cups are unchanged. Our restoration will line up the tone holes properly with the rims.

The restoration by Paul Rabinov began in May of 2009, and was completed September 16, 2009. The entire flute was dismantled and unsoldered, cleaned and resoldered. The only new parts are the cork in the headjoint, and the pads.

We believe that this flute was sold eventually to a British flutist, probably a student of Dorus', who had the last resoldering performed in England, where this flute eventually surfaced in a private collection in Wales. We



Louis Lot #136, with body numbered 186.

The tone hole rims are wired into place, and little bits of solder are hammered flat and placed to flow around the hole when melted (top-Rabinov photo). The solder has flowed, and must be cleaned (middle). Finally the flute is hand polished and repadded.

Louis Lot #136, with body numbered 186.

The footjoint socket has to line up perfectly with the strap for the mechanism to work (top). The strap is wired down for soldering (middle). The footjoint is hand polished and returned to service!

suspect the English player had the lower tenon shortened and the tone hole rims moved off center to try and play the flute at A=452. Other than the tenon, this has been undone. The only real damage over the years is the bump on the lipplate, which has opened a small section of the headjoint seam. This does not affect the playing of the flute, and we have left it as is.

After restoration, this has proven to be one of the great flutes of all time. The instrument went on a short tour of America and was played in San Francisco, New York, and Middlefield, CT.

We are honored to have been involved with Paul Rabinov in the restoration of this beautiful flute, which we first met in Wales in 1985, in the collection of the late Harry D. Jones.



Louis Lot #136, with Paul Rabinov.

Paul Rabinov was the first one to play this flute after he finished the restoration. He declared it to be the best sounding, most rewarding Louis Lot of all the flutes he has restored or tried. Louis Lot clearly began his business with extraordinary quality and creativity, and a timeless touch of the beauty possible in the Flute Tone.



Louis Lot #136, with body numbered 186.
Restored by Paul Rabinov, La Crescenta, California, Summer, 2009.
David and Nina Shorey, Antique Flutes