

THE PELITTI FIRM: MAKERS OF BRASS INSTRUMENTS IN NINETEENTH-CENTURY MILAN

Renato Meucci

Translated by Enrico Pelitti

The making of brass instruments in Italy is a subject on which little effort has been expended so far by scholars, so that one could probably imagine that it was a totally marginal activity, not deserving to be explored in depth. This, however, is not the case. Research undertaken recently as well as the review of evidence and documentation contained in little-known papers has convinced me that our opinion on this subject should be revised, and a more detailed investigation of it should be made, hopefully in the near future.¹

In commencing this re-evaluation, it seems useful to look at the history of a firm that dedicated itself to this activity to a greater extent and for a longer time than any other: that of the Pelitti family, whose major exponents, Giuseppe (1811-1865) and his son Giuseppe Clemente (1837-1905)² deserve to be recognized among the most important international makers of brass instruments in the past century.

For the two of them, the primary sources of biographical data and of information about their respective inventions have been a few informative articles by Isidoro Cambiasi, L[uigi] Magrini, Luigi P.zini and [Alfredo] Soffredini in the *Gazzetta musicale di Milano*, the famous periodical founded by Giovanni Ricordi in 1842.³ In addition to the information published in that magazine, I have been able to find and present here for the first time much more information on the activities of these excellent instrument makers. In this context I wish to emphasize the importance of the material found at the Istituto Lombardo Accademia di Scienze, Lettere, e Arti (called then "Imperial Regio Istituto Lombardo di Scienze, Lettere e Arti"), which appears to be accurate for the most part, as it is made up of descriptions, drawings, and reports related to the contests on new inventions held by the Institute every two years, beginning in 1805.⁴ The prizes awarded in these instances constitute official recognition of the validity of the claims for the item submitted, and are therefore the practical equivalent of patents, which went into force in the whole of Italy only after the reunification of the entire country in 1860.⁵ On the other hand, it has not been possible to compile a detailed list of the Pelitti instruments preserved in Italian and foreign museums, a task beyond the scope of this paper.⁶ With the assistance of the iconographic material found in sales catalogues, as well as in other references, I have attempted to describe the specific features of almost all the instruments invented or perfected by the two major figures of the Pelitti family.

The Pelitti factory was founded in Varese around the middle of the 18th century by Luigi Pelitti, and continued by his son Giovanni.⁷ Initially active in the construction of

“harpichords and church organs,” it soon turned to the construction of brass instruments. Another son of Luigi, Paolo (born in Varese in 1765)⁸ was probably also involved in this work. Paolo’s activities as a maker of brass instruments are confirmed by the existence of a natural horn signed with his name and dated 1795.⁹

Giovanni Pelitti had nine children, of whom at least three dedicated themselves to the making of brass instruments: Paolo, born in 1802 in Varese and founder of the factory in Milan, and his brothers Giuseppe (1811-1865) and Carlo (1818-1864), who followed Paolo to Milan and also settled in that city.¹⁰ When Paolo moved to Genoa in 1828, setting up a new factory that was active until his death in 1844, Giuseppe took over the firm of his brother, soon entrusting the job of heading the workshop to the very young Carlo. Carlo functioned in this capacity continuously until his death in 1864.¹¹

To Giuseppe Pelitti, “a man with little formal education, but an exquisite artistic sense and a rare inventive power,” belongs the credit for the impressive success of the firm in the following years, as well as the invention of many musical instruments, some of which were to enjoy lasting success. In 1830 he created a “large bore copper trumpet” [a bugle] for field signals. Later constructed in brass, it was adopted first by the Austrian army and then by the army of the Ottoman Empire. For the latter, Pelitti produced 3400 of these instruments at the request of Giuseppe Donizetti (brother of the famous composer and general director of all the bands of the Ottoman army).¹²

Particularly significant was the invention in 1835 of the *bombardino*, a euphonium in B \flat that was to enjoy considerable success.¹³ This invention was generated by the necessity of overcoming the limitations of the common *bombardone* (the bass in F), which “balks at the fast succession of notes, and consequently does not lend itself to the execution of rapid passages and trills.”¹⁴ Instead the *bombardino*, “similar to the [valved] trombone in range and handling [fingering], does not have its metallic and slightly harsh sound. Its voice is soft, veiled, suggestive, recalling sometimes the human voice. An instrument of a rich compass, passionate in singing, wonderful in chords, a back-up for the basses, animated in soloistic parts, excellent in arpeggios.”¹⁵

In 1845 the Istituto Lombardo awarded Pelitti the first medal (silver) for the invention and improvement of several brass instruments.¹⁶ The report preserved in their files shows that Pelitti entered the competition

...with four natural horns, an unnamed instrument, a *bombardone*, a metal contrabassoon, and a [valved] ophicleide pitched an octave lower than usual....

The first of the eight instruments submitted was a horn pitched in C, which through two small crooks can be changed to B \flat or even to A \flat . It is then provided with a mechanism of three pistons, which allows the production of all the open chromatic notes within the following limits of its range:

A few years later Magrini described the same instrument, assigning to it however a “particular mechanism of rotary valves” instead of pistons, while later still P.zini erroneously set its invention in 1851.¹⁸ The *Pelitti-corno* was promptly adopted by the band of the Austrian Reissinger Regiment, then based in Milan—Lombardy and the Veneto in those days were part of the Austrian Empire—and “was imitated in Bohemia in 1846 and reproduced by Parisian makers in 1847.”¹⁹ In Magrini’s description:

Instrument No. 2, built of wood covered with Moroccan leather, is pitched in C, and is played with a horn mouthpiece. It contains a system of brass valves, through which any note can be produced. It has the same shape and range as the *Pelitti-corno*. Its sound however is not as loud but much softer.... We suggest that it be named *Pelitti-fono*.²⁰

Concerning the *Pelitti-fono* (which is called *pelittifero* in other places),²¹ an instrument with metal tubing and a wooden bell (see Figure 2),²² it is interesting to note the critique that appeared anonymously in *Gazzetta musicale di Milano* (1845) after a concert in the Ricordi home in Milan:

Mr. Maffei, who plays the trumpet with unique delicacy, and whose talent we sincerely praised on other occasions, gave an audition with one of the most recent new instruments of our able Pelitti, called *pelittifono* from the name of its maker. The voice of the instrument was pleasant, however it would be better suited for an orchestra, and more for melancholic than joyful parts.

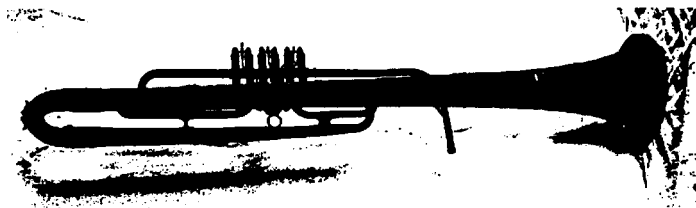


Figure 2
Pelittifono (Rome, Museo Nazionale degli Strumenti Musicali, no. 285; formerly 519)

Magrini's description of the instruments continues:

Instrument No. 3 is a rotary valve horn pitched in F, with an upright bell as in the bassoon; the tube branches are three points apart [about 1.2 cm.]; and this with the intent of leaving a layer of air around them to increase the effect of their resonance, and give the voice a greater sonority.²³

Instrument No. 4 is an alto horn, that is, a horn pitched a fifth higher than the normal one. It is provided with an ordinary mechanism for the open sounds.... The instrument is executed nicely, but does not offer anything new.²⁴

That it was an "alto or soprano horn pitched in F in the higher octave" with respect to the horn in F is confirmed by Magrini, so that together with the two previous vertical horns (No. 1 and No. 3) it came to form a sort of trio in which

...the higher voice reinforces cornets, flugelhorns and *clavicorni*.²⁵ It can execute obbligato parts with excellent effect. The middle one is graceful and effective in the harmonies, and the low one, because of the large size, gets to be very vigorous.²⁶

This is what Magrini had to say in 1845:

Pelitti had a very brilliant idea in the design of the instrument marked No. 5. He wanted to give back to the natural horn the bright tone that forms the particular characteristic of its voice, without running into the problem that affected its original design, that is, the very serious one that required changing crooks.... Now Pelitti succeeded in pitching to A \flat a natural horn with sounds both closed and open; and overcame the problem of changing the crooks with three pairs of pistons, by which he can in an instant reset the pitch and obtain all the semitones down to D \flat inclusive, always maintaining the original timbre. However, he succeeded in removing the problem only by two-thirds, since he still needs to use some crooks for the other four notes remaining in the chromatic scale. Nevertheless, it is to be hoped that Pelitti will eventually satisfy all needs with a single mechanism, and perfect thus a discovery that had been sought in vain for such a long time.²⁷

It is difficult to know how the mechanism described above was constructed, but "the three pairs of pistons" should not be confused with the normal Viennese mechanism with double pistons (which certainly could not be considered a novelty in 1845); furthermore, it is difficult to understand how the use of three valves would make it possible to lower the instrument from A \flat to D \flat (seven semitones). At any rate, the adoption of "a single

mechanism” hoped for by Magrini must have been implemented by Pelitti very soon thereafter, as indicated in a subsequent description of the instrument by Magrini in 1855. Here he talks of

...a system of loop crooks of various length, which are connected to a small box provided with a “key,” by means of which one or the other of the said crooks can be selected in order to lengthen or shorten the tube, thus giving the horn any desired pitch. To achieve this it is only necessary to turn a small handle used as an indicator, and stop it at the desired position marked on the cover of the same box.²⁸

The instrument was evidently a *cor omnitonique*,²⁹ characterized by a switch rotary valve (*cilindro tonico*) placed at the center of the instrument to select the routing of the air: an arrangement that reminds one closely of the *Tonwechselmaschine* patented by Červený in 1846,³⁰ and that, like the latter, was operated through “a rotary device comparable to the rotating platform used for rail cars.”³¹ Irrespective of any connection with Červený’s invention, this is an important confirmation that while the use of the valved horn in orchestras was gradually taking root, the tradition of the natural horn also remained alive, a situation very much in accordance with what was happening in France.³²

Again in the words of Magrini:

At No. 6 our instrument maker introduces to you a *bombardone baritono a quattro cilindri* [euphonium with four rotary valves], the 1835 invention already described, that became well established later under the name of *bombardino*. The Pelitti *bombardone* is pitched in B \flat and can cover a scalar range whose limits are the following:



Example 2

From the example it can be seen that the *bombardone baritono* is capable of an extra fourth in the low register, and an extra octave in the higher one. The instrument can be played with great agility. The notes of the low octave are significant for their support of the medium harmonies; and at the same time both high and low notes are well balanced in strength and in color.

You have in front of you a brass instrument (No. 7) with fifteen keys, easy to operate, and which is played with a reed. It is an instrument that transposes the sounds of the bassoon an octave lower. Fifteen days ago it left much to be desired.... Pelitti destroyed the instrument, and in fifteen days he built another one with modifications that would take too long to describe here.... Thus we now have a metal contrabassoon, well tuned, much more sonorous than the common contrabassoon, with two extra semitones in the low

[register] and a few extra notes in the high [register]. Its sound however still has a certain tendency toward the grotesque; but its deep notes give excellent basses to the whole group of wind instruments.

Last we have a gigantic tuba, from which sounds are generated by means of a trombone mouthpiece. It is intended to produce the sounds of the common [valved] ophicleide in the low octave..... Therefore we will call it *controphicleide*.³³

A separate discussion must be reserved for this instrument (which later became known under the name of *pelittone*), an instrument pitched a fourth lower than the common ophicleide (or *bombardon*) in F. Even among specialists, the term “ophicleide” is commonly used with reference to the instrument with keys invented by Jean-Hilaire Asté in 1817, and usually pitched in C, thus disregarding the fact that for a certain period (at least until the 1840s) it was used also for instruments of similar shape outfitted with valves.³⁴ Later on, starting in the 1850s, this name was used even more generically, becoming in the end a synonym of *bombardon*, a term normally used in Italy for the bass in E \flat or F.³⁵ The *controphicleide*, pitched in C, with compass FF#-g,³⁶ even if not too effective in the lower range, could easily overcome the limitations of the common ophicleide and insure powerful low sounds at least down to BB. This corresponded to the extreme low register of a valved ophicleide, on which these notes tended to be unfocused and out of tune. In evaluating the advantages that could be obtained with the *controphicleide*, the commission of the Institute however noted that similar characteristics had been obtained abroad with the invention of the bass tuba (cited in the treatise on instrumentation by Berlioz, but otherwise unknown at that time in France and in Italy),³⁷ and for this reason had decided “to suspend judgment on the higher prize for the *controphicleide*, until its acceptance could be demonstrated by practical use.”³⁸ In the Acts of the Prize Distribution Ceremony one reads that

...the Academic Body, echoing the universal approval, rewards it with the silver medal, and holds in suspense judgment for a higher prize over three of the instruments previously mentioned, that is, the one called *pelittifono*, the natural horn without change of crooks, and the *controphicleide*.³⁹

Pelitti's right to a gold medal was thus preserved in case they should encounter an effective practical success in the following years.

Pelitti resubmitted his *controphicleide* (this time with the name of *pelittone*, and also pitched in E \flat as well as C) for the 1847 contest, attaching to the instrument the statements of many authoritative musicians confirming its validity;⁴⁰ and it was thus finally considered to deserve the gold medal. In the same competition there also appeared an interesting “trumpet of new construction with a single switch valve, and a master crook of variable length with which one can go through all tones without changing crooks.”⁴¹ The most significant documents preserved in the archives of the Istituto Lombardo concern exactly these two instruments; they are the technical drawings in full scale, shown here in Figures 3 and 4. They can be compared with the corresponding drawings in the patents that this tireless artisan had obtained in the meantime from Vienna (one for the switch-valve trumpet

on 26 August 1846, and another for the *pelittone* on 30 July 1847).⁴² From this comparison it appears that Pelitti must have imagined at least two different versions of this trumpet, since the drawing preserved in Milan refers to an instrument in B \flat with a mechanism for conversion to F, while the one in Vienna is pitched in G and E \flat , and very probably represents a slightly earlier design than the one in Milan. Finally, it can be noted that the Vienna valves, appearing in both drawings of the *pelittone*, were eventually abandoned in favor of the rotary valves.⁴³

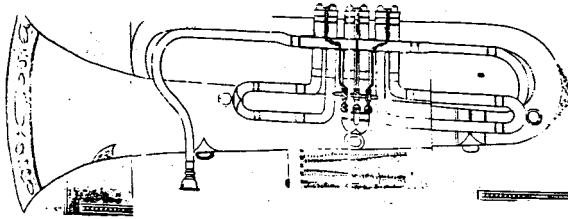


Figure 3
Pelittone, original drawing
(Milan, Istituto Lombardo Accademia di Scienze e Lettere)

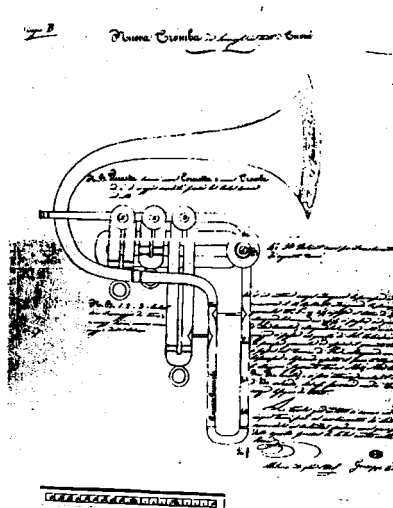


Figure 4
Trumpet with switch valve, *original drawing*
(Milan, Istituto Lombardo Accademia di Scienze e Lettere)

Still for the 1847 contest Pelitti submitted a "*flicorno in mi bemolle* [flugelhorn in Eb] that had been requested from many quarters and already delivered to a few bands of the regiments of the Piedmontese army and to the Hussar Regiment now based in Milan,"⁴⁴ that can very probably be identified with the *genis*,⁴⁵ and finally the first prototype of the double instruments resubmitted by him in later contests under the name of "duplex."⁴⁶

For the 1851 contest Pelitti submitted a *pelittone* even more grave and imposing, pitched in BB \flat (see Figure 5), that takes the name of *generale pelittone*, and was also produced in the characteristic *a tracolla* shape (across the shoulder) for cavalry use (see Figure 6).⁴⁷ Pelitti also submitted an entire set of unique instruments known as "duplex." These consisted of two different sets of tubing, connected to a single mouthpiece, and selected by means of a suitable switch valve. There were four models: the flugelhorn/cornet duplex, the *genis*/trumpet, the *bombardino*/baritone trombone, and the *bombardone*/bass trombone (see Figure 7), all of them capable of switching instantly from the first to the second instrument of the pair. In addition the author equipped each of these models with a special mute, similar in its operation to the metal one used today with the horn for *bouchée* sounds, and made up of "a sort of wood cork bored on its axis and provided with a small metal tube, ending in a small bell. When said cork is applied to the orifice of the cornet, or of the *genis*, or of the *bombardino*, it produces veiled sounds, which appear to come from afar."⁴⁸ Because the date of the competition that year was very close at hand, the judging of these instruments was deferred to the next round, that of 1853, where Pelitti appeared again, submitting this time also a metal contrabassoon "of a completely new design (see Figure 8, No. 23),⁴⁹ much less heavy than the older one, and with easier fingering of the keys, as they are now grouped closely together, and have been reduced to only twelve."⁵⁰ Based on the tests that were performed, the new instrument was found to have a sonority more than double that of the normal contrabassoon, but again as a matter of prudence, the Institute committee decided to award to Pelitti only the silver medal for the group of instruments submitted (the *pelittone* in B \flat , the duplexes, and the contrabassoon).

On the subject of the double instruments (sometimes also called *gemelli* or "twins"), of which Pelitti was for all intents and purposes the true and first inventor,⁵¹ it may be worth mentioning an episode that falls among those controversial matters of paternity, improper appropriation, or outright plagiarism that marked a good deal of the history of the brass instruments in the nineteenth century, and that frequently had as their protagonist the famous Adolphe Sax. Sax had a chance to examine the series of duplex instruments sent by Pelitti to Paris for the 1855 Exposition, and

...having been able to practice with one of them, had the talent to build a facsimile, and the impudence to present it as his own invention, and the power to cause the Pelitti exhibit to be relegated to a very dark enclosure. Thus the Pelitti instruments did not appear at a visible location until very late. Warned of this travesty, our instrument maker rushed to Paris, arriving the day of the distribution of the prizes, just in time to witness the awarding of

Milano - Disegni degli strumenti musicali. Finitura di Giuseppe Pelittoni - Milano.
CANTIERI MUSICALI S. CARLO

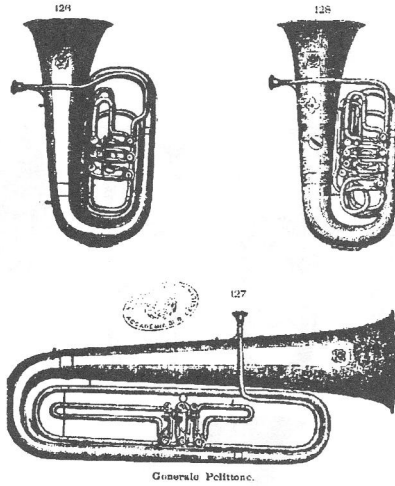


Figure 5
Pelittoni
(from Disegni, 1873)

Milano - Disegni degli strumenti musicali. Finitura di Giuseppe Pelittoni - Milano.
CANTIERI MUSICALI S. CARLO

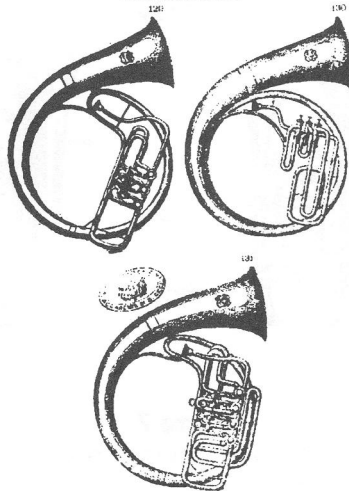


Figure 6
Pelittoni
(from Disegni, 1873)

Milano. - Disegni degli strumenti musicali d'ottone di Giuseppe Pelitti - Milano.

(Invenzione Pelitti)

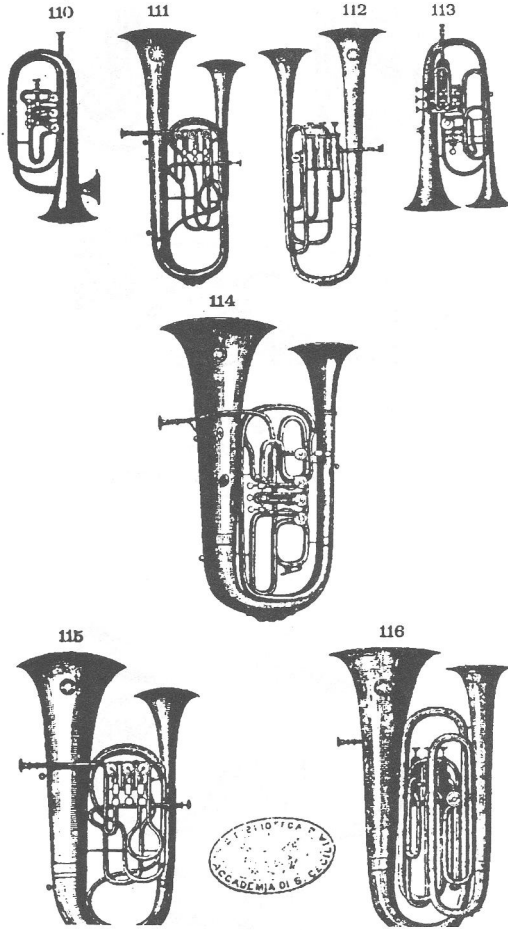


Figure 7
Duplex instruments
(from *Disegni*, 1873)

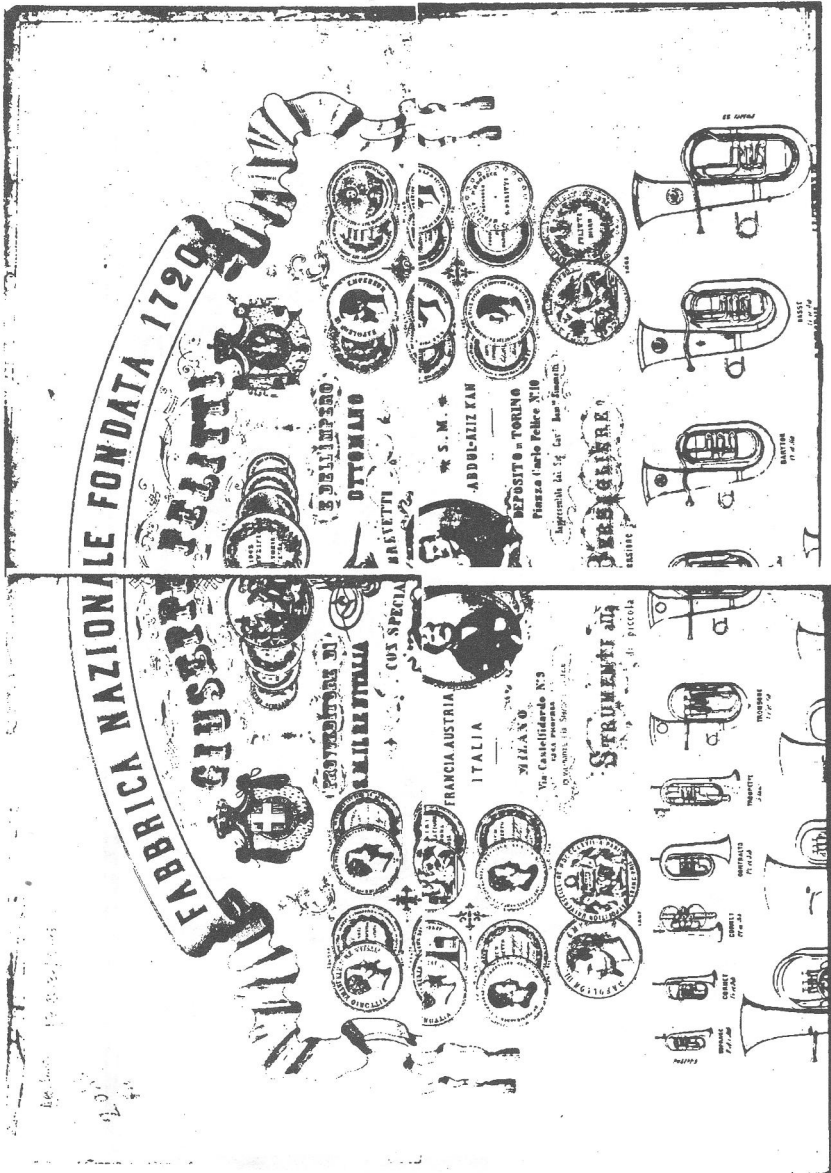


Figure 8
Prospectus of c. 1870

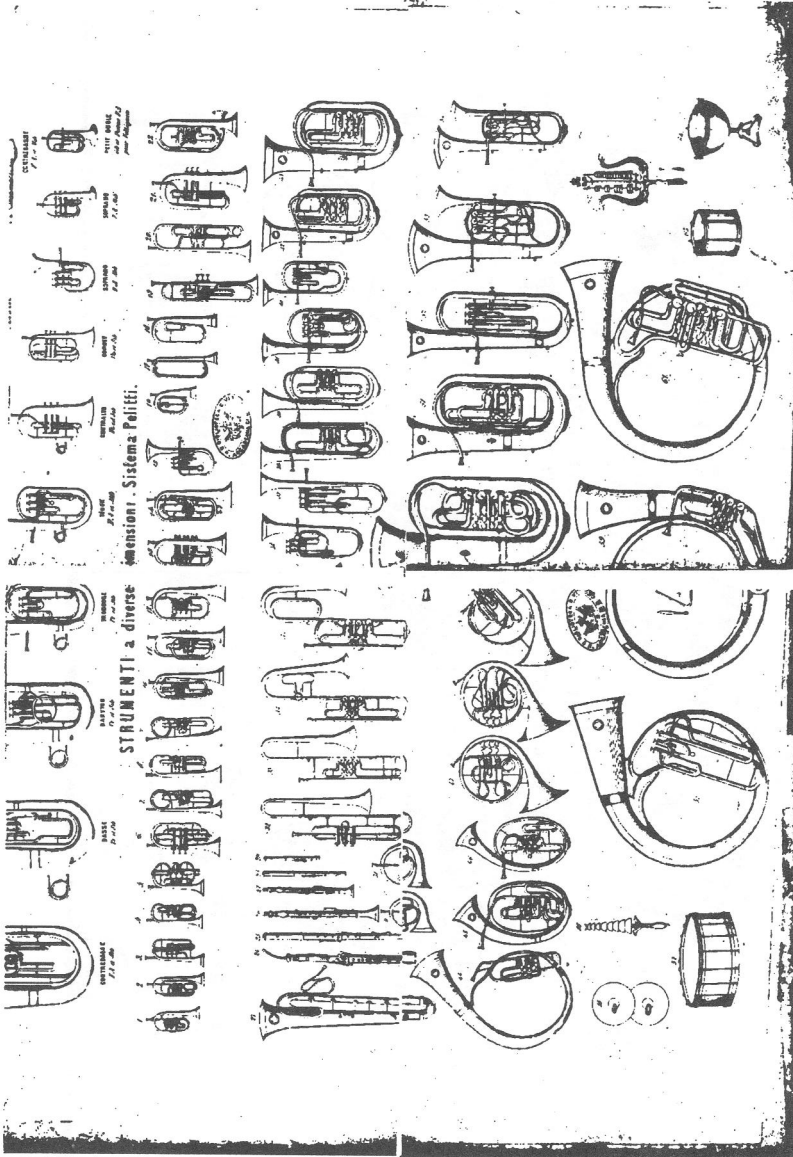


Figure 8 (Cont.)

the grand gold medal to Sax, as the inventor of the trumpet and *genis duplex*.⁵² How could the *Istituto Lombardo* remain indifferent to a such a blatant usurpation, since it was within its power to remedy it?⁵³ If the Jury of the 1855 Universal Exposition did award the greatest honor to the purported author of a duplex, how could our Areopagus withhold the gold medal from him who four years earlier had created an entire family of them under their very eyes?⁵⁴

Finally, a few years later, the Pelitti factory was to produce even triplex instruments, based on the same principle and combining three instruments into a single one.⁵⁵ Later still they created duplexes with two bells, one inside the other.⁵⁶

The invention of the covered rotary valves in 1861 derived from the fact that the old-style rotary valves ran into too many serious problems. Rain, dust, the slightest nothing was enough to make them malfunction. Pelitti solved all these problems with the innovation of covered valves.⁵⁷

It is not easy to tell the exact nature of this innovation, but we find it confirmed in the catalogues of 1880 and 1888, in which cornets, trumpets, and trombones (but not other instruments) are offered with “covered valves” at prices about one quarter higher than the models with normal rotary valves.⁵⁸ It probably consisted of a special type of covered fixed cap (the one on the side of the “horseshoe” and levers), since it is difficult to imagine any innovation of the screw cap (the one at the opposite side of the valve).

A real organological curiosity is the 1862 “Garibaldi trumpet with revolver,” which was intended “to give the trumpeter on horseback a defensive weapon connected to the instrument, which he must hold in his hand at all times.”⁵⁹ The following year, 1863, saw an ingenious adaptation to smaller instruments of the form conceived by Stowasser in 1848 for his large contrabass *helicon*. It was applied to the *clavicorno*, the bass *flicorno*, the trombone, and the *bombardino*, built in the characteristic circular form,

...not only for the greater comfort of the musician, especially in the cavalry, but also to obtain greater purity and accuracy of the sound, since he had observed that upright instruments such as the *clavicorno* and the *bombardino* would not send the voice straight up, but rather somewhat obliquely to the left, while the same instruments carried around the neck point the bell, and therefore their voice, toward the center of the band.⁶⁰

To the same year (1863) belongs the invention of the “machines with piston rotary valves,” consisting of “the replacement of the spring-loaded keys with another mechanism of easier handling and one-third less expensive,” and furthermore “applicable to all instruments.”⁶¹ The most detailed description of the characteristics of this mechanism appears to be the one provided by Comettant:

Instead of being put into play by a small balance mechanism on which one presses with the finger as in the common rotary-valve cornets, the new system presents all the aspects of a very short piston, and it is put into play by a very thin rod, completely identical to that of the common piston. The particular name of this machine, *cilindro a rotazion á stantuffo* [sic] means “rotating and piston cylinder.” The value of the invention consists then for the moment in the combination of the advantages of the cylinder with those of the piston. Instead of making the body of the piston descend, the shaft of the piston is lowered by the pressure of the finger, [and] it turns on itself.⁶²

Therefore it is possible that this was the system adopted, for example, in trumpet no. 49 of the *Disegni* 1873 (see Figure 9), where small rods are visible, intended to operate the rotary valves.

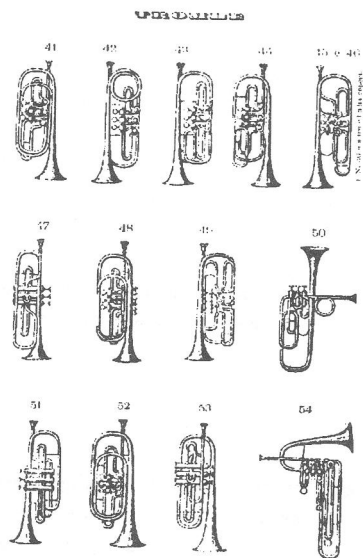


Figure 9
Trombe (trumpets)
(from *Disegni*, 1873)

With the death of the older Giuseppe in 1865, the job of running the firm fell to his son Giuseppe Clemente. He had precociously shown considerable technical and entrepreneurial skills, and after a study trip during which he had visited the most famous German

and French factories, opened his own workshop in 1860 at age 23, employing as many as forty people.⁶³ At the death of the father, the two firms were consolidated,⁶⁴ and the building at Via Castelfidardo 7-9 was acquired. It became the seat of the factory after 1870, and the poster shown in Figure 8 with the picture of both Pelittis, father and son, belongs to this period. It remained the seat of the enterprise until after 1885, when a subsidiary was opened in Precotto—a nearby community now part of Milan—which later became the headquarters of the firm.

The features that characterized the technical research of Giuseppe the son are summarized by P.zini, who in talking of the instruments mentions on one hand the care “given to the forms as related to the laws of acoustics” and “the perfect intonation, solidity and excellent workings of the mechanisms,” and on the other hand “the elegance and beauty of the forms.” P.zini adds that

...in the Pelitti factory there are truly skilled engravers who lavish on the brass instruments all of the fine points and seductions of their art. As proof of their skill, it should be enough to recall the magnificent baton in ivory and gold presented by Pelitti to Maestro Faccio in Paris, after the splendid triumph of the orchestra of la Scala at the Trocadero.⁶⁵

Thanks to the entrepreneurial talent of Giuseppe the son, the Pelitti firm experienced considerable growth, expanding its exports in a short time to the whole world, and setting up warehouses in Buenos-Aires, Lima, and Montevideo.⁶⁶ He also deserves credit for the expansion of the range of products manufactured, the start of a manufacturing activity of woodwind instruments, and the distribution of bowed and plucked stringed instruments, printed music, and various other products (see *Catalogo* 1888).⁶⁷

But let us see now which are the principal inventions to be attributed to the second of the two Pelittis, all going back to the period between 1865 and 1880. First of all, three “complete fanfares” (that is, complete sets of instruments for brass bands), designed for infantry, cavalry, and navy bands (see Figure 10), in accordance with the respective requirements of use and position:

The infantry musician plays while marching, the cavalry musician plays on horseback, and the navy musician plays while sitting on benches, since the rolling of the ship would not allow otherwise; it made sense therefore to [make one type of] instrument better suited for a standing position, another of a comfortable shape that would allow the musician to think also of the horse, another more twisting and coiled so that the sitting man would not find it awkward.⁶⁸

Shortly before 1870 came the invention of the famous *tromba alla bersagliera*, the “Bersag horn” (see Figure 11), with a single piston that lowers the instrument by a fourth, which for its quality of attack and ease of response enjoyed great success during World War

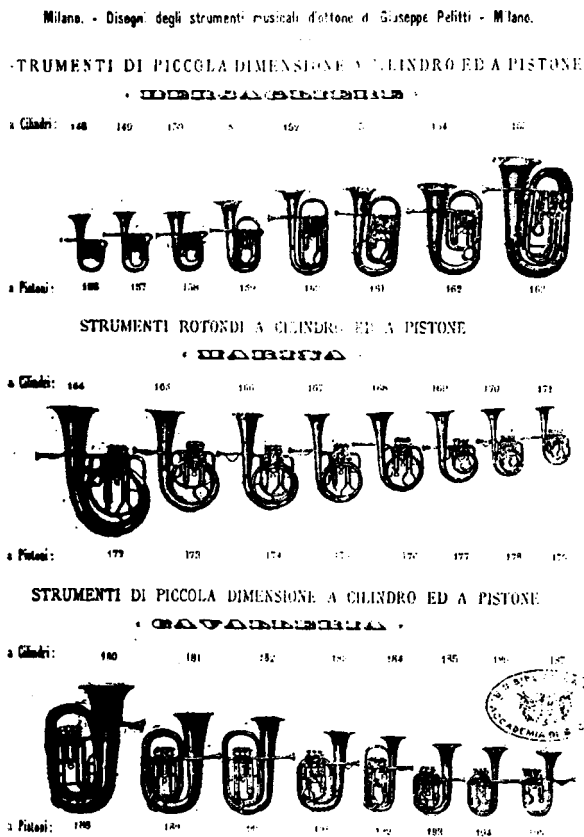
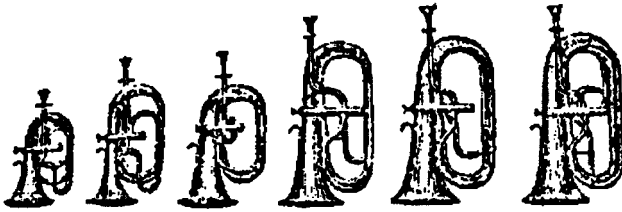


Figure 10
Three complete sets of "fanfare" instruments
(from *Disegni*, 1873)

I, and is still in use today. The idea of the single piston was then applied to a completely different instrument, the "Aida trumpet," built by Pelitti at the request of Verdi for the premiere of the opera in Cairo in 1871.⁶⁹ It was followed by the *clavicorno* in Eb, a model with very large-bore tubing⁷⁰ that could cover a very wide range and perform parts written for euphonium, trumpet, or cornet. The *bombardone tritonio*, a sort of triplex, but unlike the model in which three different instruments are brought together, is "a single instrument, that by means of an extremely fast mechanism can play [in] three different tonalities (F, Eb, and Bb), which on account of their special tone represent three distinct voices—bass, baritone, and tenor."⁷¹ Also to Pelitti the son we owe the double *pelittone*, a variation of the famous family instrument, provided with a special transposing valve.



Trombe alla Bersagliera
(Fig. 1).

Figure 11
Trombe alla Bersagliera
(from *Gazzetta Musicale di Milano*)

Another group of instruments, among them a percussion type, saw the light in 1881 at the Industrial Exposition held in Milan that year. We learn about them from P.zini, who records,

...a pair of kettledrums to be mounted and tuned by means of small wheels with folds and articulations, a system that can be applied to any instrument of the same type, of great advantage for the quick mounting and tuning of the skins.

Two trumpets very much worth mentioning, one in B \flat , very simple, with no mechanism, that can be used either for signals in army units, or to accompany brass bands without the need for any crook. The other trumpet with piston rotary valves would also be very useful to army units for its quickness in transposition.

The baritone-duplexes, with transposition piston, joined by means of an internal connecting tube, without prejudice to the sound.

The upright *bassetto* in B \flat , bound to produce major changes in bands and especially in orchestras. This instrument, with rotary valves, has the range of a tenor trombone in B \flat , and although it is very small, it can produce notes even lower than those of a deep *pelittone* in B \flat .⁷²

But the real inventive glory of Giuseppe, the son, is the instrument that, in honor of its famous inspirer, took the name of *trombone basso Verdi*.⁷³ On the vicissitudes related to it and its role in Italian performance practice, where it substituted for the bass-tuba until at least the 1930s, I have dwelt at length in my study on the *cimbasso*.⁷⁴ The conclusions reached there can be quickly summarized. At the beginning of the 1880s the bass-tuba was

an instrument practically unused in Italian orchestras, where *bombardons*, ophicleides, and *pelittones* were preferred. The congress of musicians held in Milan in 1881 was urged to review the possibility of introducing this instrument in the orchestra, and expressed itself in favor of it.⁷⁵ Verdi, who did not participate in the congress, went in the meantime to visit the Pelitti factory, and tried out the vertical *bassetto* in B \flat mentioned above (a bass *flicorno*) and a bass trombone in B \flat (actually a bass/contrabass) of very recent invention. He found

...the bass trombone in B \flat and E \flat to be excellent, as it achieved a perfect homogeneity of timbre with the tenor trombones, thus completing the quartet without altering the fundamental notes, which happens instead with the present ophicleides and similar instruments, all very good for a band, but out of place in an orchestra.⁷⁶

From that moment on in spite of the opposite deliberation of the congress, the *trombone contrabasso Verdi* became the official instrument of Italian orchestras and continued to be used by them until the late adoption of the tuba.⁷⁷

Something remains to be added with regard to the public activities of Giuseppe, the son, and his role in the wind instrument industry in post-unification Italy.⁷⁸ The first indications of an open and, to a certain extent, generous character⁷⁹ can be recognized in his founding of a mutual assistance society for the benefit of his workers.⁸⁰ Even more revealing is the magnanimous and courteous attitude shown by Pelitti toward his competitors when his primacy as an "industrialist of wind instruments" had become practically uncontested (he participated for the first time *fuori concorso* in the Paris Exposition in 1878). In this context P.zini tells of a conversation he had with Pelitti: "Don't spend too much time here,' he told me. 'Come with me to look at the other displays; you will see that my colleagues are hard at work and are making considerable progress.'"⁸¹

This attitude is even more evident in the *Relazione* of 1881, a text that Pelitti composed as member of the Jury of the Industrial Exposition of Milan: "May my colleagues in art recognize in my work the justice that is worthy of their approval, which I will consider my most valuable reward."⁸² In this respect Pelitti cites, at the exclusion of his own firm—and frequently with words of praise—all the principal factories of brass instruments of the time: Ferdinando Roth (Milan), Alessandro Maldura (Milan), Ambrogio Santucci (Verona), Antonio De Toni (Verona), Carlo Morisi (Milan), Alfonso Abbate (Naples), and Ruggiero & Figli (Naples). Finally, the task of actually representing the petitions and interests of these (and other) makers of brass instruments fell to Pelitti the following year, when it became necessary to defend the interests of Italian exports affected by a new commercial treaty with France.⁸³

Unfortunate events that befell the family must have taken a toll in the last few years of the life of this great instrument maker. First he lost his second son, Eugenio, age 26 (1861-1887), prematurely and in rather obscure circumstances. Then, ten years later, his first son, Paolo (1860-1898), took his own life. In the absence of other direct heirs, when Giuseppe died on 16 March, 1905,⁸⁴ his widow, Antonietta Corso (1834-1912), ran the factory for

a few years. The events immediately following the death of the latter cannot be easily reconstructed, but it is certain that by 1921 the Pelitti firm had already been absorbed into that of Antonio Bottali, son-in-law and successor of Ferdinando Roth,⁸⁵ the fortunes of which it must have shared until the closing of the latter, just before World War II.

Esposizioni Riunite - Milano 1894

— FUORI CONCORSO —

Insignito di più Ordini Equestri, Nazionali ed Esteri, di Cavaliere, Ufficiale e Commendatore.
 Vice Presidente Onorario dell'Accademia Nazionale di Francia con grande Diploma, Spille d'Onore e Rappel de Diploma d'Honneur.
 Membro dell'Accademia del R. Istituto Musicale di Firenze.
 Premiato in diverse Esposizioni Nazionali ed Estere con

8 GRANDI DIPLOMI | 7 MEDAGLIE D'ARGENTO
 8 MEDAGLIE D'ORO | 10 MEDAGLIE DI BRONZO
 DIVERSE MEDAGLIE D'ARGENTO, DI BRONZO E MENZIONI ONOREVOLI DI COOPERAZIONE

ESPOSIZIONI:

MILANO 1843	PARIGI 1855	COSTANTINOPOLI 1865	TOHINO 1871
MILANO 1847	MILANO 1858	DUBLINO 1865	LIMA 1872
LONDRA 1851	FIRENZE 1861	PARIGI 1887	VIENNA 1873
MILANO 1853	LONDRA 1862	TORINO 1883	NAPOLI 1874
NEW-YORK 1853	MILANO 1863	MILANO 1871	PARIGI (fuori concorso) 1878

Esposizione Mondiale di MELBOURNE (Australia) 1890
 Due Medaglie di 1^a Classe per Strumenti Musicali di metallo e di legno.
 MILANO 1881 - Esposizione Industriale (fuori concorso). | LONDRA 1886 - Esposizione Italiana (fuori concorso).
 MILANO 1881 - Esposizione Musicale (fuori concorso). | BARCELLONA 1888 - Esposizione Mondiale (fuori conc.)
DIPLOMA D'ONORE ESPOSIZIONE ITALIANA DI LONDRA 1885
 Giurato a diverse Esposizioni: Pavia 1877 - Milano 1881 - Anzi 1882 - Lodi 1884 - Esposizione Generale Italiana di Torino 1864.
 Fautore della R. Casa di S. M. il Re d'Italia, dell'Esercito e di altri Generali.
 Brevettato da S. M. il Re d'Italia e da diversi Generali Esteri per l'uso dello Stemma.
 Speciali Privilegi Nazionali, Francesi, dell'Imperiale Regia Camera Aulica di Vienna, non 60 Diplomi di varie Accademie.
DIPLOMA D'ONORE massima onorificanza gruppo musicale Esposizione PALERMO 1901-02.
 Esposizione Italo-Americana per il centenario Colombiano GENOVA 1892 (fuori concorso).

Giurato in diverse Esposizioni Nazionali ed Internazionali.

Fautore della R. Marina per le Musiche e Fautore con Decreto 16 Luglio 1893.

Figure 12
 Prospectus with list of prizes (in table of *Esposizioni*, Milano 1843 and Milano 1858 should read 1845 and 1857, respectively)



Figure 13
 Giuseppe C. Pelitti

APPENDIX A

Addresses for Giuseppe Pelitti (1811-65) and Giuseppe C. Pelitti (1837-1905)
(All in Milan)

Year	Address	Street No.
Giuseppe Pelitti		
Trade		
1828-46	Contrada de' Ratti	3187
1847	Contrada dei Tre Alberghi (o Tre Re)	4092
1853	Contrada Pescheria Vecchia	1077
1854	Contrada Dogana	4038
1861-65	Contrada Pescheria Vecchia	1077
Residence		
1846	Contrada de' Pennacchiari	3227
1853	Contrada San Salvatore	1071
Giuseppe C. Pelitti		
Trade		
1861	via San Vittore al Teatro	15
1866	via Morigi	8-10
1868	via Beccaria	4
1877	via Castelfidardo	7-9
1885	Precotto (subsidiary)	
1896	Precotto	
Residence		
1860	Corso di Porta Comasina	2184
1861	Contr. Torre de' Morigi (later via Morigi)	2858

APPENDIX B

Catalogues of the Pelitti Factory

(Original sources in Rome, Biblioteca del Conservatorio Santa Cecilia, unless otherwise indicated)

Giuseppe Pelitti. Fabbrica nazionale fondata 1720 [National factory founded 1720]. N.p., n.d. [ca. 1870]. 1 sheet, illus. Italian and French text.

Disegni della Fabbrica Strumenti Musicali di Giuseppe Pelitti [Drawings of the Pelitti Factory of Musical Instruments]. Milan, 1873. 26 pp., illus.

Catalogo P[remiato] R[egio] stab[ilimen]to musicale Giuseppe Pelitti: Milano. Milan, 1880. 44 pp. Italian and French text.

Prezzo corrente speciale delle trombe per fanfara d'invenzione Pelitti [Current Special Price List of Trumpets for Fanfares of Pelitti's Invention]. Milan, c. 1880. 2 pp.

Prezzo corrente speciale delle cornette, corni, fischietti, postiglioni, ecc. ecc. [Current Special Price List of Cornets, Horns, Whistles, Various Hunting Articles, Articles for Trolleys, Coaches, Postilions, etc.]. [Milan], c. 1880. 3 pp., illus.

Catalogo P[remiato] R[egio] stab[ilimen]to musicale Giuseppe Pelitti: Milano [Catalogue of the Royal Musical Instrument Factory]. Milan, 1888. 132 pp. Italian and French text. Venice, Biblioteca del Conservatorio Benedetto Marcello.

APPENDIX C

Writings of Giuseppe (Clemente) Pelitti

Apprezzamenti sulla fabbricazione degli strumenti musicali in Italia, loro importanza, progresso ed esportazione [An Evaluation of the Manufacturing of Musical Instruments in Italy, Their Importance, Progress, and Export]. Milan: Tip. Maglia, [1881].

Relazione sugli strumenti musicali in legno in ottone ed a percussione presentati dalle diverse fabbriche alla Esposizione Nazionale di Milano 1881 [A Report on Wood, Brass, and Percussion Instruments Presented by the Various Factories at the National Exposition of Milan]. Milan: Tip. Maglia, 1881.

I fabbricanti di strumenti musicali [The Makers of Musical Instruments]. Milan: Tip. Maglia, 1882.

NOTES

1. Recent studies include Renato Meucci, "On the Early History of the Trumpet in Italy," *Basler Jahrbuch für historische Musikpraxis* 15 (1991): 9-34; and Gabriele Rocchetti, "Benedetto Bergonzi cornista, compositore e inventore cremonese (1790-1839)," *Recercare* 2 (1990): 151-71. Lesser-known studies include Luigia Cellesi, *Storia della più antica banda senese* (Siena, 1906) and Francesco Luisi, "Contributi minimi ma integranti: Note su Petrobono, Niccoló Tedesco, Jacomo da Bologna e la prassi musicale a Ferrara nel Quattrocento, con altre notizie sui Bonfigli costruttori di strumenti," in *Studi in onore di Giulio Cattin*, ed. Francesco Luisi (Rome, 1990), pp. 29-52.
2. Giuseppe Clemente is referred to as "Clemente" in the period between 1860 (the year in which he started his own activity, leaving his father's factory) and 1865 (the year when, following his father's death, he merged both his own and his father's factories into a single operation, which he headed). From that moment on he is called "Giuseppe," a fact that led to the assimilation of the two persons into a single one in modern bibliography.
3. While I was able to identify the complete names of Magrini and Soffredini, I could not determine the exact last name of Luigi P.zini, which appears always in this abbreviated form in all publications consulted. After the final editing of this article a new source on the two Pelittis was discovered: P. [= Pasquale?] Piacenza, *Cenni sulla fabbrica d'istrumenti musicali di Giuseppe Pelitti in Milano* (Acqui, 1872). It deals with many of the inventions referred to in this article but adds very little additional information.
4. I am grateful to Corrado Vailati, the very valuable curator of this institution, for the courtesy and assistance he provided.
5. For the purpose of establishing the effective date of a few inventions, it must be remembered that the items accepted in these contests had to be submitted to the respective committee at least a few months ahead of the date set for the awarding of prizes.
6. The largest Italian collection of historic brass instruments, many of them made by the Pelitti factory, is in the Museo Nazionale degli Strumenti Musicali in Rome. At present only a brief guide of this museum exists. See Luisa Cervelli, *Antichi strumenti in un moderno museo: Museo nazionale degli strumenti musicali - Roma* (Rome, [1986]).
7. The title of one of the catalogues of the factory, the oldest among those known until now, is *Giuseppe Pelitti, Fabbrica Nazionale Fondata 1720* [National Factory Founded 1720]. This date cannot be accepted without some reservation; it is probably a self-serving exaggeration.
8. The biographical data regarding the earliest members of the family were traced and put at my disposal by Dr. Enrico Pelitti, a descendant of the very branch of which Paolo was the progenitor. Dr. Pelitti, who lives in Florida and is working on a biography of his own family, has provided the translation of this article, reviewing it with the author. For this, as well as for the courtesy shown me on various occasions, I wish to express my very deep thanks.
9. See *Mostra di strumenti musicali del '600 e '700*, ed. Luisa Cervelli (Rome, 1965), p. 11.

10. This Paolo, not to be confused with the other Paolo, his uncle, born in 1765, was among the first in Italy to produce keyed trumpets, for which he was awarded a silver medal by the *Istituto Lombardo*. See L[ui]gi Magrini in *Gazzetta musicale di Milano* 13, no. 33 (1855), pp. 260-62; here, p. 260.

11. See Luigi F. Casamorata, *Gli strumenti musicale all' Esposizione italiana dell'anno 1861* (Florence, 1865), p. 406 ("...for thirty years head of the workshop of his [Giuseppe's] factory").

12. Magrini, *Gazzetta*, pp. 260-62. In Magrini's text Giuseppe Donizetti (1788-1856) is erroneously called Andrea.

13. The term *bombardino* is still used at present in Italy to identify *flicorni* of this pitch.

14. See Magrini, *Gazzetta*, (1855) pp. 260-62.

15. See P.zini, "Visita allo stabilimento Pelitti" [Visit to the Pelitti Factory], *Gazzetta Musicale di Milano* 36, no. 11 (1881), pp. 103-4; no. 12, pp. 111-12; no. 13, pp. 123-24; here, 36/12: 112. The paternity of this instrument generated the first controversies with Adolphe Sax, with conflicts reported in *Revue et Gazette Musicale de Paris*, 23 May 1847, and in Isidoro Cambiasi, "Esposizione degli oggetti d'arti e manufatture in Brera," *Gazzetta musicale di Milano* 6, no. 24 (1847): 185-87 (with arguments favoring Sax in the first case, and Pelitti in the second). The story is also reported, with plenty of details but strongly biased in favor of Sax, in Ad[olphe] Pontécoulant, *Organographie. Essai sur la facture instrumentale. Art, industrie et commerce* (Paris, 1861), 2: 313-315. See also Wally Horwood, *Adolphe Sax (1814-1894): His Life and Legacy* (Baldock, 1983), p. 99.

16. The archives of the Institute preserve the material relating to the prizes awarded to Pelitti in 1845, 1847, and 1855 (this latter file also contains documents pertaining to 1851 and 1853), while the material for the contest of 1857 could not be located. From the documents that survive, it appears that, in each one of these cases, the instruments were examined by a commission of three judges, one of whom, Luigi Magrini, was charged with preparing and presenting to the other members of the Institute the final report and the proposal for the awarding of prizes.

17. L[ui]gi Magrini, *Strumenti musicali da fiato: Concorrente Giuseppe Pelitti* (Milan), a handwritten report of 1845, file 103/63.

18. See Magrini, *Gazzetta*, (1885) pp. 260-62; see also Luigi P.zini, "Visita," (1881) 13: 123-24.

19. See Magrini, *Gazzetta*, (1885) pp. 260-62. It is possible that Magrini was referring to the *cornon* of Červený, crediting Pelitti with a first that he did not deserve (the *cornon* had already been patented in 1844); however, it is difficult to believe in an effective relationship between these two instruments, inasmuch as the *cornon* had a narrower bell section with respect to the common horn, while the *pelitticorno* presented, with respect to the latter, "a smaller and less abrupt restriction." See Herbert Heyde, *Das Ventilblasinstrument. Seine Entwicklung im deutschsprachigen Raum von den Anfängen bis zur Gegenwart* (Wiesbaden, 1987), p. 188. At any rate, the particular affinities of certain inventions of Pelitti and those of Červený that should be the object of a careful investigation have already been touched upon by Heyde (*Das Ventilblasinstrument*, p. 225).

20. Magrini, *Strumenti*, 1845, file 103/63, no. 2.

21. This name is found in P.zini, "Visita," (1881) 12: 111, and has been used in the past with this spelling. See Renato Meucci, "Il cimbasso e gli strumenti affini nell' ottocento italiano," *Studi Verdiani* 5 (1988-89): 123, n. 65; however, the documents preserved at the Istituto Lombardo leave no doubt as to the correct spelling, that is, *pelittifono*.

22. To my knowledge, this is the only surviving sample, at the Museo Nazionale degli Strumenti Musicali in Rome, no. 285 (formerly no 519), and I wish to thank this institution for the permission to photograph it.

23. Magrini, *Strumenti*, 1845, file 103/63, no. 3.

24. *Ibid.*, no. 4.

25. The *clavicor*, patented by Guichard in 1838, found an immediate and wide acceptance even in Italy. One of the earliest confirmations of this is found in Antonio Tosoroni, *Trattato pratico di strumentazione* (Florence, 1850), p. 60. The term, used initially only for instruments with very narrow bore, was soon adopted for specimens of larger size pitched in E \flat or even in B \flat , and always built in vertical form. See Magrini, *Gazzetta*, p. 261.

26. P.zini, "Visita," (1881) 13: 123-24, here 123.

27. Magrini, *Strumenti*, 1845, file 103/63, no. 5.

28. Magrini, *Gazzetta*, pp. 260-62, here 261

29. Concerning the failure to adopt an Italian term for the instrument in question, see Vinicio Gai, "La denominazione corno omnitonico nella nomenclatura organologica italiana," in *Studia organologica: Festschrift John Henry van der Meer* (Tutzing, 1987), pp. 187-94. See also Magrini, *Strumenti*; (1884) *idem*, *Gazzetta*, (1885) pp. 260-62; and P.zini, "Visita," (1881)12: 111-12, where the simple definition of *corno omnitonico* is always replaced by long periphrases.

30. See Gunther Joppig, "Vaclav Frantisek Červený: Leading European Inventor and Manufacturer," *Historic Brass Society Journal* 4 (1992): 217-18.

31. P.zini, "Visita," (1881)12: 111-12.

32. The little-known experiments of mechanization conducted in Italy in the early part of the 19th century are being actively investigated by Gabriele Rocchetti (see note 1). A horn *a macchina* invented by Luigi Pini and built by Lorenzo dall'Asta in 1822—therefore one of the first valved instruments—is preserved in the *Museo Civico Medievale* of Bologna, and was recently restored by Ursula Menzel (Munich). It is a peculiar specimen with double valves, a mechanism that might even have inspired the famous Viennese model developed by Uhlmann. In this respect, see John Henry van der Meer, "Gli strumenti musicali europei del Comune di Bologna," *Recercare* 3 (1991): 244-45. A keyed horn

was also designed by Carlo Bernardi and Giacomo De Luigi and submitted to the Istituto Lombardo in 1824. Even as late as 1881 not all Italian musicians were convinced that it was necessary to abandon completely the old instrument in favor of the new one; some of them felt that in teaching the practice of one model should be alternated with that of the other. See *Atti del congresso dei musicisti italiani riunito in Milano dal 16 al 22 giugno 1881* (Milan, 1881), p. 21. Regarding French developments, see Reginald Morley-Pegge, *The French Horn* (London, 1973), pp. 3-4.

33. Magrini, *Strumenti*. 1845, file 103/63, nos. 6-8.

34. See Heyde, *Das Ventilblasinstrument*, pp. 225-227; and Meucci, "Il cimbasso," pp. 116-19, tables 5-9.

35. See Meucci, "Il cimbasso," pp. 119-26.

36. Isidoro Cambiasi, "Esposizione degli oggetti d'art i manufatture in Brera" [Exhibit of Artistic and Manufactured Objects at Brera], *Gazzetta musicale di Milano* 6, no. 24 (1847): 185-87.

37. See Ettore Berlioz, *Grande trattato di stromentazione e d'orchestrazione moderne*, transl. Alberto Mazzucato (Milan, [1846-47]), p. 242. This Italian version is the first translation of Berlioz's treatise ever published. A review by L. F. Casamorta had already appeared in *Gazzetta Musicale di Milano* 5, no. 14 (1846): 105-07.

38. Magrini, *Gazzetta*, (1855) pp. 260-62, here 261.

39. G. Labus, "Estratto dei giudizi," in *Collezione degli atti delle solenni distribuzioni de' premj d'industria fatte in Milano ed in Venezia dall'anno 1840 al 1852* (Venice, 1852), pp. 289-314; here, 301.

40. Among them were those of the bandmasters of the Reissinger regiment mentioned above, the Herbert regiment, the 8th and 10th *Cacciatori* (=hunters) regiments, and the 4th regiment of the Piemonte Brigade. See [Luigi] Magrini, *Strumenti musicali da fiato di Giuseppe Pelitti* (Milan), a handwritten report of 1847, file 251/10; and Magrini, *Gazzetta*, (1855) pp. 260-62.

41. Magrini, *Strumenti*, 1847, file 251/10.

42. Both patents, with respective illustrations, are preserved at the *Technische Universität*, Vienna, and were recently published in Heyde, *Das Ventilblasinstrument*, p. 64 (Abb. 50) and p. 255 (Abb. 48). In the text of the patent of the trumpet cited by Heyde (p. 64), perhaps because of a misprint, it is erroneously stated that the instrument could play in B. The opposite opinion is expressed by P.zini in "Visita," (1881) 12: 111, and is actually confirmed by Heyde in the caption of Abb. 50.

43. In the 1870 catalog (*Giuseppe Pelitti. Fabbrica nazionale fondata 1720* [n.p., n.d. (c. 1870)]); see Figure 8) only two instruments (both high-pitched) show this Viennese mechanism: no. 11 (trumpet) and no. 13 (flugelhorn); in *Disegni della Fabbrica Strumenti Musicali di Giuseppe Pelitti* (Milan, 1873), only the cornet no. 12, the *flicorno* no. 30, and the trumpet no. 48 (see Figure 9).

44. Magrini, *Strumenti*, 1847, file 251/10.

45. This is the Italian term normally used to identify the tenor in Eb. It has not been possible to clarify the origin of this peculiar denomination, since Enrico Allocchio, *Metodo conciso e dilettevole per Genis in Mib* (Milan, 1875), p. 2, claims that the "genis, invented by Mr. Giuseppe Pelitti, was thus named because of its genial shape," while other authors, for example, Arnaldo Bonaventura (*Storia degli strumenti musicali* [Livorno, 1908], p. 71) would trace it back to an instrument maker of this name. My thanks to Prof. Vinicio Gai, who brought these two sources to my attention.

46. "A double instrument, designed and built in the last few days, with which the same player can use at the same time the trombone and the bombardino." See Magrini, *Strumenti*, 1847, file 251/10.

47. This is an instrument having a circular shape, similar to that of the *helikon* patented by Stowasser in 1848.

48. [Luigi] Magrini, *Pelitti, Giuseppe: Strumenti musicali in ottone* (Milan), a handwritten report of 1853 (no file no.).

49. In P.zini, "Visita," (1881)12: 111-12, the date for the invention of this instrument is pushed back to 1839; at any rate it was presented for the first time at the 1845 contest.

50. Magrini, *Pelitti* (1853).

51. As previously noted, the original idea goes back to 1847.

52. The medal awarded to Sax on this occasion, however, was for all the inventions and improvements introduced by him to the family of wind instruments. See Malou Haine, *Adolphe Sax (1814-1894): Sa vie, son oeuvre et ses instruments de musique* (Brussels, 1980), pp. 149-50. The attempt of Pelitti to have his primacy recognized is documented in the files of the Istituto Lombardo for the 1855 prizes, where a letter is preserved in which Savina Pelitti, "in the name and for the account of her husband, Giuseppe, maker of musical instruments, presently in Paris," asks that he be issued a statement testifying that the duplex had already been displayed as early as 1851.

53. Significant in this respect is the position taken by Pontécoulant, a friend and strong supporter of Sax, who, after accusing Pelitti of having exploited an idea not his own, will grant him, with a more realistic objectivity, the credit for the invention of the duplex and of other instruments. See Pontécoulant, *Organographie*, p. 513; idem, *Douze jours à Londres: Voyage d'un mélomane à travers l'Exposition Universelle* (London, 1862), p. 221; and idem, *La musique à l'Exposition Universelle de 1867* (Paris, 1868), p. 41.

54. Luigi Magrini, "Fabbrica di strumenti in ottone di Pelitti Giuseppe, dall' I. R. Istituto di Scienze, Lettere ed Arti premiato colla medaglia d'oro per creazione di Duplex," *Gazzetta musicale di Milano* 15, no. 36 (1857): 283-84. See also, P.zini, "Visita," (1881) 12: 111-12.

55. I could not identify any specimens of these instruments, however, in the known catalogues. See P.zini, "Visita," (1881) 12: 111.

56. "Then on the occasion of the Paris Universal Exposition of 1878, a new model of the duplex was

presented, which had the appearance of having only one bell, while the second of them was placed inside the first, and this for greater comfort without in any way altering the sonority of such instrument" (*Catalogo P[remiato] R[egio] stab[ilimen]to musicale Giuseppe Pelitti: Milano* [Milan, 1880], p.14).

57. P.zini, "Visita," (1881)13: 123-24.

58. The caption of an illustration in the *Disegni* of 1873 (see Figure 6, nos. 45 and 46) indicates that the example not shown differs from the one shown in just this detail of construction ("No. 46 has three covered rotary valves").

59. P.zini, "Visita," (1881) 13: 123-24. This instrument, which even earned the favorable comment of General Garibaldi (see A[lfredo] Soffredini, "L'Esposizione teatrale...", *Gazzetta musicale di Milano* 49, no. 25 [1894]: 387-89), elicited a sarcastic remark from Pontécoulant (*Douze jours*, p. 280): "Le représentant de M. Pelitti a présenté cet instrument au Jury et l'on a trouvé qu'il serait beaucoup mieux placé dans l'exposition d'un armurier." ("The representative of Mr. Pelitti presented this instrument to the judges and it was found that it would fit much better in the display of a gunsmith.")

60. P.zini, "Visita," (1881) 13: 123-24.

61. Ibid. In the *catalogo* of 1888 (*Catalogo P[remiato] R[egio] stab[ilimen]to musicale Giuseppe Pelitti: Milano* [Milan, 1888] the instruments *a macchina* available for sale are actually offered at a price one third lower than the other models. Just because of this invention, the Pelitti catalogs always differentiate the instruments *a macchina* from those with pistons and those with rotary valves, while normally in Italian the term *a macchina* was (and still is) used to indicate indiscriminately any type of mechanism, be it with pistons or with rotary valves.

62. Oscar Comettant, *La musique, les musiciens et les instruments de musique chez les différents peuples du monde* (Paris, 1869), p. 658. "Au lieu d'être mis en jeu par une petite bascule sur laquelle on presse avec le doigt comme dans les cornets à cylindre ordinaires, le nouveau système présente toutes les allures d'un piston très-court, et est mis en jeu par un tige très-légère, parfaitement identique à celle du piston commun. De là le nom particulier de l'engin, cylindro a rotazione à stantuffo [*sic*], ce qui veut dire cylindre à rotation et à piston. Le mérite de l'invention consiste donc pour le moment dans la combinaison des avantages du cylindre avec ceux du piston. La tige du piston qui s'abaisse sous la pression du doigt, au lieu de faire descendre le corps du piston, le fait pirouetter sur lui même." (English translation by Stewart Carter.)

63. P.zini, "Visita," (1881) 11: 103-04.

64. The instruments bearing the signature of Clemente Pelitti that have survived (for instance the clarinet in the Germanisches Nationalmuseum of Nuremberg, MIR 460) evidently must be attributed to the period 1860-1865.

65. P.zini, "Visita," (1881) 13: 123-24.

66. In 1881 Pelitti was receiving orders for instruments "from Egypt, Greece, the two Americas, France and Germany [...] or now from Burma." See P.zini, "Visita," 11: 103-04.

67. See *Prezzo corrente speciale delle trombe per fanfara d'invenzione Pelitti. Con Privilegio e Regio Decreto 5 Gennaio 1872* [Current special price list of trumpets for fanfare of Pelitti's invention] (Milan, c. 1880); *Prezzo corrente speciale delle cornette, corni, fischietti, articoli diversi da caccia, da tramway, omnibus, postiglioni, ecc. ecc.* [Current special price list for cornets, horns, whistles, various hunting articles, articles for trolleys, coaches, postilions, etc.] (Milan, c. 1880); and *Catalogo* (1888). In the latter publication, which dates from the time of maximum expansion of the factory, are listed about 1000 entries, comprising instruments, books, and all types of accessories.

68. Soffredini, "L'Esposizione," (1894) pp. 387-89.

69. See the letter by Verdi to Camille Du Locle dated 2 August 1871: "I ordered from Pelitti six straight trumpets of the ancient Egyptian shape, which are not currently in use and therefore had to be expressly built"; see *I Copialettere di Giuseppe Verdi*, ed. Gaetano Cesari and Alessandro Luzio (Milan, 1913), pp. 267-68. See also *Carteggio Verdi-Boito*, ed. Mario Medici and Marcello Conati (Parma, 1978), 2: 309-10.

70. In the *Catalogo* of 1880 one of the models for sale is specifically called a "large-caliber Pelitti model" (p. 8).

71. P.zini, "Visita," (1881) 13: 123-24. In this case, as well as for the double *pelittone* that follows, it has not been possible to identify the exact nature of the "very fast mechanism" used to change the various tonalities.

72. Luigi P.zini, "Esposizione Industriale. Vetrina Pelitti," *Gazzetta musicale di Milano* 36, no. 21 (1881): 193-94.

73. The verbal skirmishes between the instrument maker and the composer, who politely declined (but without success) the offer to see the new instrument named for him, were reported in the daily paper *La Nazione* on 12 October, 1881. See Marcello De Angelis, "Testimonianze verdiane," *Quaderni di Teatro* 9 (1987): 108-9.

74. Meucci, "Il Cimbasso e gli strumenti affini nell' Ottocento italiano" [The bass horn and related instruments in 19th-century Italy], *Studi Verdiani* 5 (1988-89): 126-30. English translation in preparation for *Galpin Society Journal*.

75. See *Atti*, (1881) p. 104.

76. "Visita di Verdi allo stabilimento Pelitti," *Gazzetta musicale di Milano* 36 (1881), p. 319.

77. Verdi explicitly specified the contrabass trombone (which he simply called "trombone basso") only for his last two operas, *Otello* (1887) and *Falstaff* (1893). From that moment on, however, the instrument began to be used even for the bass parts of his earlier operas, which, prior to *Aida* (1871), all require a *cimbasso*, a term that eventually became the second name for this trombone. At this point it is evident that the opinion that identifies indiscriminately the *cimbasso* with the contrabass trombone does not do justice to the situation that existed before 1881, and ultimately to the original intention of the composer, who certainly could not have such an instrument at his disposal before that year. See

Meucci, "Il Cimbasso."

78. For about twenty years, from 1885 to his death, he was Mayor of Precotto, now part of Milan, where still today there is a street named for him. See Soffredini, "L'Esposizione," (1894) pp. 387-89. Research on the private life and the biographies of the various members of the family is currently being conducted by Dr. Enrico Pelitti.

79. P.zini provides us with some information on the personality of our instrument maker, whom he describes as a "gentle soul, kind, really dedicated to his art." "Esposizione,"(1881) pp. 193-94, here 194.

80. See *Cronaca Varesina*, 6 December, 1874.

81. P.zini, "Esposizione,"(1881) pp. 193-94, here 194

82. See Giuseppe Pelitti, *Relazione sugli strumenti musicali in legno in ottone ed a percussione presentati dalle diverse fabbriche alla Esposizione Nazionale di Milano 1881* (Milan, 1881), pp. 1-4.

83. Giuseppe Pelitti, *I fabbricanti di strumenti musicali* (Milan, 1882), pp. 1-15.

84. *Gazzetta musicale di Milano* 60, no. 4 (1905): 255.

85. Enrico G. Rovira, *Il concorso nazionale di liuteria, Roma MCMXVI-MCMXX* (Rome, 1921).