

METHOD FOR TRUMPET

François Georges Auguste Dauverné

(b.Paris Feb. 15, 1800 - d.Paris Nov. 5, 1874)

Translated by Gaetan Chenier(Historical Summary-2nd half), Ruby Miller Orval (Dedication Letters, Forward, Historical Summary-1st half, Musical Exercise Section), Rebecca Pike (Musical Exercise Section), and Jeffrey Snedeker (Introduction and First Part of the Method).

[Editor's Note: Dauverné's Method of 1857 is of great importance for at least two reasons. The author gives us a unique historical perspective on the trumpet through the vast historical survey. Also, from a practical standpoint the reader can further appreciate the use of trumpets during this unique period. The natural trumpet, newly invented piston trumpet and slide trumpet were all in active use at this time. Dauverné examines each instrument in a thorough pedagogical manner. This is the last method to approach the use of the natural trumpet. Dauverné, an internationally known trumpet virtuoso, was born in Paris on February 15, 1800 and died in that same city on November 5, 1874. At the age of 14, after two years of study, he joined the King's Garde des Corps [Life Guard band], where he remained until 1830. From 1820 to 1851 he was 1st trumpet with the Paris Opéra Orchestra. In 1833, he became the first ever professor of trumpet at the Paris Conservatory, and filled that position until his retirement in 1869. It was at the Conservatory that Dauverné taught Arban from 1841 to his graduation in 1845. In addition to his Trumpet Method, which was published in Paris in 1857 by the firm of Brandus, Dauverné published a collection of 6 solos for chromatic trumpet, with 2 violins, viola, cello and double-bass accompaniment and optional flute and 2 horns, ibid. [A facsimile edition of this method, edited by Edward H. Tarr, is to be published by Musikverlag David McNaughton.]

[Translator's Note: One of the problematic choices a translator must make involves the nature and style of the wording of the translation itself. The choice in this case was to preserve as much as possible the tone of Dauverné's writing. Unfortunately, at times his choice of words, his uses of punctuation and his multiple clauses cloud points he is trying to make. However, in most instances, the following of obvious implications, coupled with a certain amount of patience while reading (along with some added words in square brackets []), will serve well enough to clarify these confusing parts of his discourse. Wherever necessary in order to eliminate ambiguities, names of musical instruments are given in both the original French as well as in square brackets in English. Titles to French language books quoted in this Method are translated strictly for enlightening the

reader about the topic, and may not correspond to titles of actual translations of those same books. Also, only sample exercises are shown here; it would be impractical to include them all.]

[Manuscript dedication handwritten in German]

Garde des Corps [Life Guards]

Handed over most-graciously as its very own to the Detachment of the *Garde des Corps* [Life Guards], from His Majesty the King, on the 27th of March 1862.

[Title page]

Trumpet Method

preceded by an Historical summary of this instrument as used among the different peoples from Antiquity to the present day.

Dedicated to Mr. Auber, Commander of the Imperial Order of the Legion of Honor, member of the French Institute, Director of the Imperial Conservatory of Music and Declamation, and of the Band of His Majesty the French Emperor Napoleon III.

Work approved and adopted by the music section of the Academy of Fine Arts (French Institute) and by the Imperial Conservatory of Music.

by F.G.A. Dauverné,

Professor at the Imperial Conservatory of Music and Declamation, etc., etc.

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[To Undertake and To Complete...from the Tr[ust] Library of Ernest Aug.]

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In homage to His Majesty George the Fifth, King of Hanover.

[First letter, signed Auber]

Imperial Conservatory Paris, March 18, 1956

of

Music and Declamation

The Director of the Imperial Conservatory of Music and Declamation (Member of the Institute), to Mr. Dauverné.

Sir,

The Trumpet Method of which you are the author was submitted for appraisal to the Committee for musical studies of the conservatory, and examined by it with serious attention. The result of this examination is a report which justifies the high esteem of the committee for your work. Along with the unanimous vote of its members I add, Sir, my particular congratulations, and thank you for having given our school a work which was missing from the teaching of the class which you were first called upon to lead, a class whose ongoing success attests to the fine impetus which you imprinted on it.

Please accept, Sir, the assurance of my most distinguished regards.

The Director of the Imperial Conservatory of Music,

Signed AUBER.

[Second letter, signed DOUCET]

Department of State Paris, March 31, 1856

Theatres

Summary

REPORT by the Music section of the Academy of Fine Arts
(French Institute) on the Trumpet Method by Mr. Dauverné, professor at the Imperial Conservatory of Music.

(Meeting of Saturday May 24, 1856.)

The *Trumpet Method* by Mr. Dauverné has the double merit of being a complete treatise for the use of people who dedicate themselves to the study of this instrument, and of being interesting and useful for composers as well. The properties, the character, the resources of the Trumpet are explained in this method with utmost clarity, and concern not only the ordinary Trumpet, its range, and the range particular to each of its keys or tuning crooks, but also all the chromatic Trumpets, with slides, with pistons, and with rotary valves.

The many Exercises composed by the author are well written and consist of progressive lessons, etudes of several types, arranged for two, three and four Trumpets.

An Historical Summary precedes the Method and explains all the transformations and modifications which the Trumpet underwent from Antiquity to the present day. This type of introduction bears witness to much research and knowledge, and is of veritable interest.

In the Appendix following the Introduction, the author has transcribed several pieces composed during the last century for three, four, and up to seven Trumpets; these varied pieces, very curious, attest to the surprising skill of the Trumpet players of that period.

The Music section approves the Method of Mr. Dauverné, the most complete work ever written on this subject.

Certified accurate:

The Head of the Theatres Division,

Signed Camille DOUCET

[Third letter, signed Auber et al]

Imperial Conservatory Paris, March 12, 1856

of

Music and Declamation

REPORT by the Musical Studies Committee of the Conservatory on the Trumpet Method of Mr. Dauverné.

The Musical Studies Committee of the Imperial Conservatory of Music has examined the *Trumpet Method* which Mr. Dauverné submitted and which the author's merit recommended in advance.

This Method is divided into three parts. The first is preceded by an Introduction of Historical Account which is of great interest for the details and new insights it contains regarding this instrument, whose origin goes back to remotest antiquity.

Everything which, in this first book, has to do with the didactical part, is skillfully treated: the mouthpiece, tonguing, breathing, etc. One also notices a curious piece entitled *Concerto for VII Trumpets with Tympani* (from the 18th century) drawn from the works of J.E. Altenburg.

In the second part, one finds Duets, Trios and Quartets which are progressive and suitable for developing the instrumental technique and shaping the taste of the students.

Finally, the third part is devoted to the chromatic Trumpets, known under the name of slide Trumpets and piston or rotary valve Trumpets. It contains studies specially written for each of these instruments, and completes this work which deserves the attention of all who are interested in the progress of art.

The Committee thinks that there are grounds to adopt Mr. Dauverné's Method for use at the Imperial Conservatory of Music.

Signed AUBER,
Director, President of the Committee

CARAFÀ, F. HALEVY, A. THOMAS, G. VOGT, L. LEBORNE, L. MASSART, D.
ALARD, GALLAY, PRUMIER.

Edouard MONNAIS,
Imperial Commissioner.
Alfred de BEAUCHESNE,
Secretary.

FOREWORD

The foundation of the Music Conservatory, one of the glories of France, dates to 1795. So many skillful professors, who have succeeded one another ever since the origins of this beautiful institution, have handed us down, for teaching purposes, learned tenets which have even prevailed with the neighboring peoples from whom we earlier had held our musical instruction. The favorable impetus given by these fine, success-crowned works, by lifting musical art to that high degree of perfection where it shines today with such brilliance in the middle of the universal splendor of the arts, had to successively develop all its branches.

Only recently, under the direction of the celebrated Cherubini, the Trumpet and the Trombone, which had already conquered an important place in our orchestras, were finally rescued from oblivion where previous directors had allowed them to languish. In 1833 and 1836 Cherubini obtained through the generosity of the Government the authorization and the means to found a special class for the teaching of each of these two

instruments formerly relegated to the war arsenal.

Elected by examination as professor of the first Trumpet class, I understood from that moment the obligation imposed upon me to create a methodical way of teaching the Trumpet, in accordance with modern practice. I felt the need to imitate those of my colleagues who had forged new paths in teaching by setting down the basis of my teaching in a treatise *ex professo*; I realized at the same time the difficulty, in the absence of any precursory truly didactical work on the subject, of defining the true principals and rules of an instrument reputed thankless, not so long ago neglected, and recently somewhat renewed in France through its increasing employment in the orchestras and the uncommon role it has taken on in accompaniment.

It is thus not without asking for their indulgence that I submit this new Trumpet Method to the appraisal of other artists who will, I hope, pardon its imperfections, if one takes into consideration that I publish it in order to pay the required tribute by trying to be deserving of the honor which I have had of being placed among so many men known for their talent and their useful works.

By preceding the didactical part of this Method with an Historical Summary, I was thinking that this excursion into the domain of history would not be without interest for the young artist studying the Trumpet; the latter has in fact, ever since remotest antiquity, been involved with the political institutions of most civilized peoples, and has even had a marked influence on several of them. The young artist may gain therefrom not only satisfaction of his natural curiosity, but legitimate pride as well if he is attentive in considering the modifications made by time or by necessity in the material, shape and size of the Trumpet.

Grandson of an artist skillful on this instrument, from birth I awoke to the sound of the Trumpet. Nephew and student of David Buhl, who deserves to be called the outstanding Trumpet player of his era, I drew from the spring of the best precepts. May my work, fruit of long experience, justify the confidence of masters and students who will want to adopt it and contribute to the progress of the art. I bequeath to my successors the care of pursuing this work and of bringing it to its perfection.

F. G. A. DAUVERNE

Paris, 1856.

HISTORICAL SUMMARY ON THE TRUMPET

INTRODUCTION

Before undertaking a didactic work about the Trumpet, we have thought that it was important to present the antique origin of this instrument in use among all peoples, and to prove that in all periods it was considered by those authors who spoke of it as the most noble and most majestic of the wind instruments.

The Trumpet is found everywhere one finds men living as a society. It is somewhat the index of civilization: it is involved in all political and religious institutions; it presides over all ceremonies and all celebrations; it declares war, gives the signal to combats, sounds the retreat of the vanquished, proclaims the triumph of the victors; in games and in feasts it applauds by its fanfares the victory of those who receive the crowns. One can apply to the Trumpet what Boileau said of the ode:

To the athletes in Pisa it opens the gate,
Sings a dusty victor at the far end of the arena.

In tournaments it followed the fortunate knight who went to receive the prize from the hand of the ladies. It precedes the conquerors, announces the arrival or the meetings of sovereigns, assists at their treaties, sanctions, so to speak, their oaths; it also announces the births of the great and the powerful, and accompanies them still to their graves.

The most enlightened peoples of antiquity held this instrument in the highest esteem, as proven by the symbols found in iconography. One always sees the Trumpet placed in the hand of gods, priests, heroes, or other distinguished characters.

The effects of the Trumpet are grand and sublime! It is the only instrument whose name was spoken by God¹, which God designated to Moses², who sounded it to the Israelites from the top of Mount Sinai³, before the people used it upon his command. Lastly, it is this instrument which is to wake human kind from the sleep of death.

In the time of Moses, the Trumpet already had a remote history. Everything seems to indicate its origin goes back to before the flood. In fact, almost all authors who have written about the history of music and about instruments have recognized that, according to Moses, the antediluvian peoples' ceremonies, to preserve their oral traditions through hymns and canticles, and for amusement or to give rhythm to their dance: these authors also noticed that instruments had been invented at this remote time, and their invention was attributed to Jubal, whose brother Tubalcain knew the art of forging and working metals.

The scholar Villoteau in his work entitled: *Recherches sur l'analogie de la musique avec les arts qui ont pour objet l'imitation du langage* [Research on the Analogy of Music with the Arts Which Have for Goal the Imitation of Language], obviously proves that Jubal, helped by his brother Tubalcain, had invented not only stringed instruments but also the metal Trumpet⁴. Whatever the case may be, one can admit with certitude that the Trumpet was in use immediately following the flood, and that its invention may have been attributed either to Mesraim, son of Cham, who came after the flood and peopled high Egypt or Thebaid, designated in the holy books as the land of Cham or of Mesraim,

or its invention may have been attributed even to Menes, founder of Memphis and first king of Egypt under whose reign, according to Herodotus, the Egyptians attained, about 3000 years before the Christian era, a remarkable degree of civilization.

It is natural to believe that these individuals, who had received the traditions of their fathers on all knowledge which man had acquired, themselves renewed or transmitted the use of musical instruments, and that as a result were attributed the invention of the Trumpet.

Chapter First

Origin of the Trumpet. — Its ancient and modern usage among the peoples of the Orient, of Africa and of America.

Everything seems then to prove that Jubal invented the Trumpet. Nevertheless according to several authors, among whom that of *Origine des premières sociétés* [*The Origin of the First societies*] ⁵ Thubal, leader of the Pyrenean Iberians of Celtic origin, who settled in Egypt several centuries before Moses, might have invented the Cornetts or Trumpets which the nomadic shepherds used to herd their flocks. But the names of Thubal and that of Jubal are so alike, that they could each lend themselves to similar interpretations. On the other hand, the Latin name *Tuba* is more properly derived from the masculine *Tubus*, from where we took the word *tube*, which expresses most generally the shape of a Trumpet; for the Hebrews, who had preserved the antediluvian tradition, didn't call the Trumpet *Tuba* but *Chatzotzeroth*, the Egyptians *Chnoué*, and the Greeks *Salpinx*; ourselves we call it *Trumpet*, the diminutive of *Trump*, derived from the Greek *Strombos*, the name of a kind of shell to the likeness of which the Trump was made. [Translator's note: *Strombe* is French for 'conch'.] Besides, shouldn't we believe that the tradition of knowledge acquired before the flood was conserved by Noah and reaped by his descendants, but that were subsequently dubbed as inventors those who, at different intervals, renewed or simply modified and perfected the manufacture of instruments, manufacture which had been momentarily interrupted by the dispersal of peoples? Thus do the ancient pagans, who date the origin of the Trumpet back to the source of their own traditions, give this instrument a place in Mythology and designate the Egyptian god Osiris as the inventor of the Trumpet, dedicated to Minerva, the personification of the arts; which did not keep the Greeks, however, from giving the honor of the discovery to Tyrsenus, son of Hercules, to Pisée[?] the Tyrrhenian, and even to the Greek Arichondas[?], who was the first to blow the Trumpet at the Olympic games.

Without allowing ourselves to go too far into the vagueness of the first authors who researched the origin of the Trumpet, let us leave aside their scholarly controversies and consider preferredly the invention itself and skate over the uncertain chronology of the first societies.

Does it not seem that the idea of the Trumpet must have presented itself naturally to whoever took it into his head to blow into a bull's or ram's horn which had first been perforated, or into a hollow reed, or into a conch shell opened at both ends of its spiral?

Who would not have inevitably understood the value of such a discovery; whether to herd livestock or to call to arms a people menaced by hostilities; to give signals, or still to get together on particular holidays, or particular times of day? The first Trumpets were therefore either large reeds, hollowed-out wood, animal horns or large shells. All these types of Trumpets are still being used in several countries just as they had been by the most ancient civilizations on earth.⁶

The rabbis claim that the first Trumpet, or more exactly the first Cornett (*Keren*), was one of the horns from the ram immolated by Abraham as an offering to God instead of his son Isaac. It is a recognized fact that the *Keren* was known to the patriarchs.

One can therefore infer with certainty that rams' horns were used by the Hebrews to make Trumpets, for it says in the Bible that the Israelite army, while besieging Jericho, carried the Holy Ark seven times around the city with the usual solemnity, and that those performing the sacrifices blew the rams' horns, in Hebrew (singular) *Schophar* (see p. XXIII, pl. I, fig. 3). This instrument is also called *Keren* and *Jobel*.. In the Latin versions of the Bible it is usually translated as *Buccina*, and sometimes, as for the *Chatzotzeroth*, by *Salpinx*.

It is therefore probable that the first material used for making Trumpets was animal horns. But when the use of metals became known and established, brass [copper] was substituted for horns because it was soon realized that this sonorous metal gave a powerful and incisive sound. To which era does this new use date? According to Genesis⁷, the use of metals was established in Egypt and Palestine few centuries after the flood; it was known during the time of Abraham in several Asian countries. In [Queen] Semiramis' time, the Trumpet must have been made of metal, for she had let statues of Ninus, of herself, and of the principal officers of her court be placed in her palace, made all from gold, silver or bronze. Through the care of this famous queen, the city of Babylon became the most remarkable in Asia and like a boulevard of civilization. It distinguished itself particularly by the progress it made in all the lines of the sciences and of the arts. It is therefore permissible to suppose that into the sumptuous palaces of Nineveh, Babylon and Memphis, the primitive Cornett could only have gained access under the guise of a brilliant metal.

Since the Trumpet served many purposes among the ancient peoples, it necessarily varied in shape and size. The different names used to denote the Trumpet bear this out. It is sometimes called *Tuba*, or *Lituus*, or *Cornu*, or *Buccina*, etc. In fact, these different terms designated diverse modifications or at least different uses. One such was the war Trumpet, sacred and particular, which the Israelites and the ancient peoples of the Orient used even before the instrument became known to the Greeks.

According to sacred history, God instructed Moses into using Trumpets, and in making two such instruments from hammered silver to summon the heads of the twelve tribes of Israel, in order to assemble the Hebrew people, and to give the signal to depart from Sinai and to regulate the successive march of the tribes in the desert, etc. He prescribed the manner to use them in these different circumstances, and designated the priests, children of Aaron, as those who would sound the sacred Trumpets.⁸

The Trumpet instituted by Moses was called in Hebrew *Chatzotzeroth* or *Chatzozera*; it was quite different from the Cornett or *Schophar* whose usage was never abandoned. According to the description which the historian Josephus gives of the *Chatzotzeroth*⁹, it was a tube of silver, straight, a cubit long, about the size of an ordinary flute, slightly conical, with a narrow mouthpiece and little flaring at the bell.¹⁰ It is probable that at that time the *Chatzotzeroth* and the *Schophar* were often used, because God expressly recommended that they be used for war, for religious sacrifices, for holy days and feasts.¹¹ These Trumpets were revered by the Hebrews, either because of their usefulness, or because of the respectful manner in which one made use of them.

The Scripture goes on to say that the sacred Trumpets, filling the army of Jeroboam with terror, gave complete victory to Abias, King of Judah. As soon as Jonathan, son of Saul, drove out the garrison which the Philistines maintained at Gabaa, Saul had the *Schophar* played as a sign of triumph, and he had this victory made public across the nation to the sound of this instrument.¹² Joab, general of King David's army, himself sounded the retreat in order to stop his impetuous troops from pursuing those of Abner, and ended in the same manner the battle against Absalom.¹³ Such was the military use to which the Israelites put these instruments until the time of David, who wanted to use them for the Altar Cult.

When the Ark of the Covenant was replaced in the city of David, this pious monarch designated the Levites Sebenias, Josaphat, Nathanael, Amasai, Zacharias, Banaias and Eliezer to sound the Trumpet before the Ark.¹⁴ The coronation of Solomon was celebrated to the sound of Trumpets.¹⁵ During the dedication of the Temple of Jerusalem, 120 priests sounded the Trumpet during the sacrificial offering. Since that time, the vaults of the temple have resounded with a variety of instruments noted by historians.¹⁶ According to David Kimehi, a fine Rabbi, intendant at Solomon's Temple, Solomon ordered 200 Trumpets made, modelled on the two silver ones handed down by Moses, and intended for the use of the Priests. These instruments were sometimes referred to as *Tuba*, sometimes as *Buccina*..¹⁷ Kimehi also speaks of a great number of musical instruments made from gold and silver which were kept in the archives of that temple.

It is believed that Hiram of Tyre, a famed gold- and silversmith who was charged with ornamenting the Temple of Jerusalem, was also the maker of these Trumpets and of other gold and silver instruments.

The Hebrews were also familiar with the Sackbut¹⁸ a type of Trumpet whose tube can be made longer and shorter at the player's will in order to obtain different tones. It is that same instrument perfected which today we call Trombone.

In purely religious ceremonies as well as at war, the Trumpet in the hand of Priests and Levites had a character which, together with its important services, made the Hebrews venerate it.

When about to do battle, the Levites, placed on the front line of the army, would blast a flourish of Trumpets to which would mix the voices of the soldiers, and so would strike terror among the ranks of the enemy.¹⁹

We have seen that the *Chatzotzeroth* and the *Schophar* were used still for the various signals, as well as in the feasts and ceremonies of the Jews.

The silver Trumpets, whose model goes back to Moses, were reserved for the Priests. The Levites used the *Schophar* or ram's horn, which, according to the reflections of a few authors, had to promptly be replaced by a metal cornett of the same shape.

One distinguished the Trumpet-playing Priests from the common Cornettists by their solemn duties and by the Levitical apparel they wore, i.e. the white linen robe with the scarlet belt.

A learned Rabbi, Maimonides, assures that on the evening of the sixth day in every town of Judea, the *Schophar* had to be blown up to three times from a high place, in order to convocate to the Sabbath the people of the town and even those of the neighbouring countryside. It was blown a fourth time to announce the end of the Sabbath. This custom of blowing the Trumpet from a high place would lead one to think that in the ancient synagogues, and even in the mosques, there were towers intended for making the Trumpets heard when signaling the hours of prayer. It is to be noticed that today still we find the same use established in Germany in Christian Churches.

The Leviticus says that one is to use the *Chatzotzeroth* for the feast of the new moon, but indicates only in general terms the use of the Trumpet for the feast of the seventh month. It was to the sound of fanfares that one announced the new year on the first day of the month called Tishri.

There was also a so-called Day of the Trumpets which is the same as that of atonement; it was announced to the sound of the *Chatzotzeroth*, but during the eight days which the feast lasted, one heard no other instruments but the *Schophar*²⁰, with which one still proclaimed the year of the Jubilee.²¹ Such are the feasts for which the use of the Trumpet is ordered by a special provision of the Law.²² But the Jews also used it in other religious feasts, for sacrifices and public festivities, and maybe also at informal gatherings.

The modern Jews have preserved the use of the Trumpet in the large synagogues. During the month of Elul or penance, which corresponds to our month of August, the Trumpet sounds day and night in memory of Moses going up Mount Sinai for the second time, early in the morning of the first day of Elul, in order to receive the Tablets of the Law from God. On the first day of the year, he who must sound the Trumpet stands there where the Law is read, from sunrise until sunset.

The modern Egyptians have but one Trumpet, which resembles our own in shape and material. It is a thin tube of brass [copper] and is curved, with a very narrow mouthpiece. The Arabs can only draw a few piercing and squealing sounds from it. It is called *Surme* in Egypt; it is the noisiest of the wind instruments.²³ One also finds among the Arabs a large Trumpet called *Nefyr*, a most loud instrument which is used on many occasions. One usually draws a shrill and squawking sound from it.²⁴

In the Indies as well are four types of Trumpets to be found, namely; the *Bouri*, which would be very long were it not folded in the middle, and which ends with a rather large bell. The second, called *Cambau*, is about the same as the *Bouri*, only is doubled

back but once towards the middle. The third, called *Toutaré*, has the shape of a large Cornett²⁵, and the fourth, *Kerena*, is fifteen feet long and produces a very ringing sound.²⁶ The first three Trumpets are used in the pagodas for calling the people to prayer, in religious ceremonies, for weddings, and when the widow sets herself on fire on the body of her husband; in this last case, the Trumpets sound with all their might in order to cover the cries of the distressed victim.

The Hindus also use a type of Trumpet called *Baunk*. The *Baunk* may very well compare with our Trumpet in shape as well as in sound; it is ordinarily covered with a lovely red varnish. This instrument is so common among the Hindus that they almost all play it; they try to outdo each other, not in ability, but in noise. At a celebration, each tries to make the biggest din with his *Baunk*, and this pleasant rivalry produces a hullabaloo to which European ears have much difficulty getting used.²⁷

The Chinese and the Tartars also use Trumpets for war purposes and to give courage to the troops. It is reported that the city of Kienning, fourth capital of the province of Fokien in China, having been taken by the Tartars, was immediately sacked and pillaged to the sound of Trumpets, the noise of these instruments inciting the soldiers more to ruin the city²⁸. Their principal Trumpet is called *Ja* or *Lapa*; it is a large tube of brass [copper], eight to nine feet long, and ending like our Trumpets. Its sound is disagreeable, but it can be heard from very far away.

The Trumpets used by the Chinese are of three kinds. The first type is a conch which is used to sound the retreat, to indicate drills, and for all manoeuvres for which a complete corps must be employed. There is one such conch in every barracks of the army, and one in each particular circo. These conches act also as megaphones: finally, they are occasionally combined with Gongs in order to sound the alarm. This instrument is quite ancient, and is found among certain peoples subject to the Chinese, who don't even have any other instruments.

The second type is made up of two sorts of brass [copper] Trumpets (see page [X] XIV, pl. II, fig. 1 and 2) which are, according to claims, an octave apart. As for the third type, it consists of two Trumpets made with a highly esteemed wood called *Ou-tong-chu*, and according to some reports, these Trumpets blend perfectly with the drums²⁹. (see page [X] XIV, pl. II, fig. 3 and 4.)

The Persian Trumpet, called *Kereney*, in common use at Ispahan, is a brass [copper] tube eight to ten feet long and ending with a very large bell. This Trumpet is the principal instrument of the military bands. But as to their military music, Stafford says³⁰ "It is impossible, I believe, to find anything more barbaric. Imagine the sound of a large number of Trumpets eight to ten feet long into which one blows forcefully; add to that the Drums and the Timpanis, and you will have an idea of the horrible noise which one hears daily in the King's palace and which resounds throughout the whole city. These military concerts, executed from the top of a high tower, are one of the prerogatives of the King and of the royal family; they are repeated every morning at sunrise, and every evening at sunset."

In Persia, the last Wednesday of the *Sapher* month is called the day of the Trumpet

because it must be on that day, say the Persians, that the angels will awaken the dead and call them to the last judgment³¹. For warring purposes, The Turks use also a type of pewter Trumpet called *Boru*³².

The Trumpet of the Singhalese produces the most unpleasant sound one can imagine, yet they passionately love this instrument which they devote to the religious cult and to the King; it is called *Hoveneve*³³.

The Trumpets from the coast of Guinea are made of elephant tusks. There are some which weigh more than thirty pounds. They are usually decorated with several crudely carved figures of men and animals. The sound of this instrument is strange, but with practice the Negroes find a way to adjust and modify its tones³⁴. (See page [X] XIV, pl.II, fig.16.)

In Abyssinia, the Trumpet is made from a piece of reed five feet long with an opening of about half an inch wide. At the end of this stick is fixed the neck of a gourd which has precisely the shape of our Trumpet's bell. That part is decorated with small white shells, and the whole instrument is covered with parchment. This Trumpet gives only one note, *mi*, whose sound is raucous and very loud³⁵.

The Fellahs also have a Trumpet from twelve to fourteen feet long; it is made from pieces of hollow wood, with a bronze mouthpiece. The sound of this instrument is not unpleasant³⁶.

The Trumpet used by the ancient peoples of the three parts of the ancient world, whether for the religious cult or for war, was used as well by Mexicans and Peruvians. In Mexico, it had the same shape as that of the Israelites'; it also was regarded as a sacred instrument since only the priests of the temple of Witzili-Putzili, Mexico's highest divinity, were permitted to play this instrument. Not only did this Trumpet have the same shape and serve the same purposes as the Israelite Trumpet, but again it was made of metal. The description which Plato gives of the capital of Atlantis would prove enough that during his time the cities of Mexico were not unknown; the form of worship which the Mexicans made to Witzili-Putzili bore much resemblance with the religion of the Israelites. Therefore there is reason to believe that the peoples of Egypt knew and peopled the great land which was forgotten after the disaster of Atlantis. It is therefore not surprising that the Spaniards found in Mexico and Peru the Trumpet being used in the same manner as among the ancient Israelites³⁷.

In Paraguay, among the Abiponese, the scales of the Armadillo's tail became in their hands, a noisy Trumpet³⁸.

The Trumpet used in Florida is made from tree bark. Its length is said to be of about three palms; attached to it on threads are strips of gold, silver or metal whose noise augments the harmony of the instrument³⁹. Today one finds that in Mexico, Peru, Brazil, in the United States, in Canada and among most peoples in the two Americas, the Trumpet is used in the same manner we use it.

Chapter II

Of the Trumpet among the Greeks and Romans

Though it may be true that the ancient Greeks, having taken from Egypt and the Orient their Gods, their Laws, their Sciences and even in part their origin, also knew of the *Chnoué* of Osiris' invention, should we not wonder that the Trumpet was not generally used by them until after the heroic period, and that it came to Greece not from Egypt, but from Tyrrhenia? Was it that the Tyrrhenian Trumpet had a superiority over all its precursors, and in particular over the *Chnoué*, which appealed to the Greek's exquisite sensibility? Whatever the case, it is the Tyrrhenian Trumpet, in Greek called *Salpinx*, which is mentioned in the poems of Hesiod and Homer, but only in a fictitious manner or as a term of comparison. For it was not present in the Trojan war, and was not known to the Greeks until almost a century later.

However, we cannot call into question that in Greece, as everywhere else, the use of the Trumpet was previously set by the primeval use of the Conch and Nautilus, since as naturally close at hand to man, these instruments are yet again involved not only with Greek Mythology, but also with the heroic traditions reported in the writings of most historians and poets of Greece and Rome.

Do we not see, in the war of the Giants against Olympus, the demi-god Triton who, picking up a conch from the seaside and piercing a hole in its closed end, starts blowing with all his might and making unheard of sounds so terrifying and strange that the Titans, fearing the approach of some sea monster, assistant to the gods, take flight and leave the gods victorious: which earned Triton the honor of becoming Neptune's first trumpet.

The poet Lycophron shows us also the god Mars who, in his passion, stirs up with the conch the dogs of war. It is moreover obvious that this military use of the conch existed throughout antiquity in several lands. According to Theocritus, Amycus takes a conch from the hands of one of his companions in order to call the Bithynians to arms. We see the same use mentioned in Euripides' *Iphigenia*; and Clement of Alexandria attests that throughout antiquity the Thracian horsemen used the Nautilus while at war. Even the celebrated poet Theognis bears witness to the fairly general use of Whelk among the early Greeks⁴⁰.

Tyrsenus, son of Hercules and Omphale, to whom the Latin and Greek poets generally attribute the invention of a Trumpet, founded in Etruria (Tuscany) the Tyrrhenian or Etruscan nation. It is from this nation then, whose vestiges still command admiration and surprise, that Greece before Rome, and Rome under the Tarquins, inherited the bronze — so-called Tyrrhenian — Trumpet, which fairly resembles, according to Eustathius, the Phrygian flute by its diameter, and whose bell was turned out like that of our present-day Trumpets, giving forth a very high-pitched sound: which causes to believe in all certainty that it wasn't very long. We will see that it was later generally used throughout the Western world; one can even add that it has remained the basic standard model of our modern Trumpets.

Pausanias says that Hegeleos, son of Tyrsenus, looked after teaching its use to the Dorians who rallied under Temenus' leadership during the war of the Heraclidae. Suidas reports that a certain Arichondas [?], one of the Tyrrhenians who came to the aid of the Heraclidae, brought to Greece the first instrument of this type, approximately eighty years after the Trojan war, celebrated by Homer.

Authors are far from agreed on the role which they make the Trumpet play in ancient Greece. A good number of them seem to have confused Trumpets with flutes, of which there were numerous varieties; some attribute to flutes what others say of the effect of Trumpets, which also underwent several modifications among the ancients. It would seem that the Greeks, who had a passion for music, not content with using the Trumpet where it excelled, namely for military commands, for triumphs and solemnities, used it on yet completely different occasions with instruments more melodious, such as the flute and lyre, and better attuned to their extreme sensibility. A new source of confusion in this simultaneous use; it wouldn't have taken much and the Trumpet would have been combining then, as it does today, both usefulness and pleasantness. The fact must nevertheless be acknowledged that more than one imposing account attests to the preference given by certain peoples, even for war, to other instruments. The Cretes used the *lyre*, the Archadians the *pipe*, the Spartans the *flute*. Athenians, Thebans and other peoples used *drums* and *cymbals* exclusively, for the same military use; several authors are taking it upon themselves to deduce motives for this preference.

If one is to believe Lucian, the Trumpet was still very imperfect, difficult to play and very tiring. Be that as it may, Homer talks of the Trumpet in terms which indicate its already frequent use during his time, particularly for attacks on cities. Pericles, and then Alcibiades, against the city of Cyzicus, used it for a false attack which won them the defenseless cities⁴¹. At the retreat of the Ten Thousands, there is mention but of that instrument for giving the signals. Clearchus, one of the Greek army leaders, who had joined up with Cyrus' party against Artaxerxes, having assembled the generals at sunset, makes arrangements for a secret departure in these words; "When the Trumpet gives the signal to rest, pack up; at the second signal, load the beasts of burden; at the third, follow your general⁴²." In a later encounter with the barbarians, the Trumpet gave the signal for the attack. Polybius reports that in the last battle fought by the kings of Sparta against the Macedonians, the Trumpets sounded from all sides in order to call off the light troops which had engaged combat between the two armies. Xenophon informs us further that on the Lacedaemonian fleet, orders were transmitted with the Trumpet. It was by this instrument that Gorgopas [?] made heard the signal of attack against the Athenian fleet under Eunome's [Eunomius] orders⁴³.

The Tyrrhenian Trumpet was therefore well received by the Greeks who dedicated it to Minerva⁴⁴; they used it not only at war, where it was very useful, says Diodore [Diodorus] of Sicily, but again at the solemn games which cast so much brilliance upon ancient Greece, and at religious and political ceremonies. In actual fact, the *Salpinx*, says Suidas, was a sacred instrument because the priests used it.

History has preserved the names of several of those who won the Trumpet prizes in

the games of Greece. The first was Arichondas. Quoted still is Crates, different from the philosopher of the same name, who was crowned at the 96th Olympiad, and who enjoyed so great a reputation in all of Greece that he was named the Trumpet player 'par excellence'. Timocus [?], who lived 394 years before Christ, was always winning. Hérodore [?] of Megara won the prize several times in the Nemean, or Isthmian, Pythian and Olympic games. In the army, this artist, of gigantic stature, could be heard by everyone at once, even from a great distance; one could not listen to him close up without being deafened.

Demetrius Poliorcete [sic], besieging Argos, had given the order to bring up the *helopolis*, a heavy war machine: the soldiers could hardly get it moving; seeing this, Hérodore [?] started blowing two Trumpets at once with all his might in order to give the soldiers spirit, and was so successful that the machine was carried off in double time and taken to the foot of the wall at one go⁴⁵.

Women themselves would contend with men for the palm [award] on this instrument dedicated to Minerva. Aglais [?], daughter of Megalocles, distinguished herself in the games and in the triumphs, particularly in Alexandria where she was escorted with great pomp.

According to Lucian, the Trumpet players were themselves surprised that they did not breathe their last breath through their efforts. They used a *capistrum*, or bandage, in order to increase the energy of their breath; it was made of two pieces of cloth or hide, one of which was wrapped around the head over the ears, and the other passed transversally over the crown and covered the cheeks. There was in front of the mouth an opening which gave the lips all the freedom they needed for their multiple movements. This bandage was intended to prevent the rupture of the face⁴⁶.

During the time of Pausanias, one could still see near Olympia, on a hill by the side of the road which lead to the entrance of the city, an altar on which no sacrifices were ever made but up which, during the Olympic games, the Trumpets would climb to contend for the prize.

Originally, the heralds of the games summoned the participants aloud; but a certain Hermon, says Pollux, having wandered off, was not able to answer the call of his name when came his turn to make his appearance in the arena. From then on the Trumpet was used for calling the combatants, as well as for announcing the opening and closing of the games and exercises. These heralds, in their function of proclaiming the truces and the alliances, probably again used the Trumpet; there was this herald who, without moving from his place, could make his Trumpet heard fifty stadia away (one stade is 600 feet). Pollux explicitly says that one gave the different signals for the march off, the attack, the retreat and the encamping with different calls; that there were ceremonies, and that sacred Trumpeters were entrusted with the performance of certain airs dedicated to the religious sacrifices which were common use among the Egyptians, Greeks, Tyrrhenians and Romans.

Virgil, emulating Homer, traced in the Aeneid the long trials and tribulations of the heroes who, having escaped from the Greeks' fury during the sacking of Troy, after

having traveled a long time on all the seas, arrived at last on the shores of Ausonie and became the ancestors of the Romans. If Homer is content to give homage to the powerful effects of the Trumpet by comparing them with the voice of Stentor, or even with the voice of a great goddess, Minerva, Virgil remarked everywhere in his inimitable verse, and with unheard-of magnificent images and expressions, the sublime effects of this noble instrument. That proves the high esteem the Trumpet held in the century of Augustus and its affinity with the epic more than its perfection among the companions of Eneè [Aeneas]; because we know that the Latin poet, in retelling the happenings of his country after a thousand years, was not, like the Greek poet, a true historian of the heroic times.

As for the rest by poetic license, Virgil uses indiscriminately all the names of different sorts of Trumpets in use among the Romans and even mixed in the marine trumpet [*Trompe marine*] Truthfully, does he not take pains, in a long episode consecrated entirely about the memory of Enée's favorite trumpeter, to remark that the artist Aeolien^[46a] had no equal in the art of trumpet playing, used to excite the martial ardour among the warriors and to promote courage among the fighters with his warlike sounds? He was at another time honored on the walls of Ilion and at the side of Hector and also with the *Lituus* and the lance. After the death of Hector, when he was in the service of Enée, did he not defy the sea god, not with the *Lituus*, nor the *Tuba* or even the *Buccine* but simply with the marine trumpet. His audacity led to his misfortune but he had the honor of leaving his name to Cape Miséne. In fact, at the moment when [he was] leaning over the waters of the sea, Miséne made to resound from afar the sound of the conch and Triton, jealous of a talent so fine, seized the foolhardy artist and dove into the foaming waves, whose [the artist's] body, broken by the reef, washed up without life on shore. Enée, deeply affected by the unworthy death of such a glorious hero, gave him a magnificent funeral, and with this care the trumpet and the arms of the unfortunate Miséne were reunited with his ashes in a superb mausoleum erected on the headland that kept his name for centuries to come.

It is by anachronism that Virgil took the different types of bronze trumpets from the numerous tribes of ancient Hesperie, which was opposed first, to the establishment of the Trojans in Latium. After a long internal war, they melted successively with water from age to age, in the Roman nation, which traverses the centuries with the majesty of a great river, humble at its beginning, growing along the way and flooding the entire world with its victorious collaborators.

Varron attests the use of cows horn preceded, among the Romans, the use of Bronze cornets. It is without a doubt the first of the two instruments that Properce designated as used during the time of Romulus in order to call together the first Romans⁴⁷, and that according to Virgil, had a raucous sound:... *Rauco Strepuerunt Cornus Cantu*. [The horns clatter with a harsh-sounding melody]

But no people of later times gave as much honor to the trumpet and those who cultivated the use of the instrument as the Romans. No one used it more frequently nor with as much success in war and in brilliant triumphs. The people, particularly warlike,

certainly looked upon the bronze Trumpet with favor. No other instrument could equal it for ordering the movement of troops, for stirring them up and for exciting them to perform calorous acts.

The Tyrrhenian Trumpet was introduced in Rome under the Tarquins, princes of Greek origin coming from Corinth to Etruria and from there to Rome, where they imported the immense richness of the Etruscan and Greek civilization.

Servius Tullius, 578 years BC, produced two centuries of players for the straight and curved trumpets⁴⁸. There were, in fact, as we have already said, several types of Trumpets in common use among the Romans:

1. The *Tuba* . Imitating the Tyrrhenian, that is to say straight, the bell flared (see page 23, plate 1 fig. 2.)
2. The *Lituus* . Little trumpets curved at the beginning of the bell (see page 23, pl 1. fig. 6 & 7.)
3. The *Buccina* or *Tuba curva* . Conical and curved, its circumference almost closed (see page 23, pl 1. fig. 9 & 10.)
4. The *Cornua* or *Cornu* . Little trumpet curved into a half circle. (see page 23, pl. 1, fig. 4.)

The material of these instruments was bronze; the length was variable from approximately one to three bends; the mouthpiece, usually small, was sometimes made from one piece of ivory or of silver.

The *Tuba*, from *Tubus*, the Latin word that we translate with the word *tube*, reproduces the Tyrrhenian type of trumpet like the Salpinx of the Greeks, the difference being that the size of its pipe is larger. It is characterized by a straight tube, almost cylindrical, whose bell flares in the most elegant manner. Those that we see represented on the ancient monuments are usually a meter and a half long. By appearance they must be in B or in high C on modern pitch, and could only produce sounds like the modern bugle. One can distinguish the Roman trumpet from the Greek trumpet by the nature of the sound which was above all loud. Tite-Live gave us the proof in the following anecdote. Hannibal entered by surprise the city of Tarentium and needed a scheme in order to take a Roman garrison prisoner before they retreated to the citadel. To this end he had the trumpets play the call to arms in the amphitheatre. But the Roman soldiers, knowing the sound of the Roman trumpet, caught on to the strategy and beat a hasty retreat to the citadel and in this manner the projects of the Carthaginian general failed.

The *Lituus*, which took its name from the oracle's wand, because it resembles it, is a type of intermediate trumpet, by its form and by its effects. It is between the *Tuba*, which is straight and almost cylindrical, and the *Buccina*, which is entirely curved and completely conical. Most authors agree that the *Lituus* was smaller than the *Tuba*, and its bore was smaller which gave clear, high and strident sounds. The one which is represented on the Tomb seen in Rome by Bartholin seemed to be one meter and a half long, but most of the ones we see elsewhere are barely a half meter.

Lucian marks the difference in sound between the *Tuba* and the *Lituus* in one verse:

Stridor lituum, clangorque, Tubarum. [The grating, hissing noise of the Litui and the clang of the Tubas]

The Latin authors designated under the name *Buccina*, *Buccinum* or *Buccine*, several varieties of instruments. They also say that they were primitive and made from the horns of cattle or a type of sea shell called Buccin. Later there were small Buccin of bronze and curved bronze horns two or three turns long making more than half the circumference and held by a traverse of iron that was also used to carry them. It came out of one side of the circle in order to end with a battle ax or an iron lance. These are the sort represented on most of the monuments and ancient basreliefs. (See page XXIII, pl 1, fig. 9 and 10).

Seneca, in his *Oedipus*, indicated well the difference between the Buccina or the bronze horn, and the lituus. He admirably depicts the effect of this last instrument as well as its shape and material:

Sonitque reflexo classicum corni,
Lituusque adunco stridulos cantus
Elisit aere.

[The trumpet which gives the sound for battle sounded with its turned back bell, and the curved calvary trumpet in bent brass gave forth strident sounds.]

The *Cornus* or *Cornu*, to speak properly, was none other than a cattle horn, pierced in order to produce sounds. It is probable that one made bronze cornets to use in camps and that they had dimensions similar to the natural horns and thus imitated the raucous sound. Vegece said that during his time, that is under the emperor Valentinian, one used the horn from a type of wild bull from the region of Gaul and Germany to make a Trumpet complete with a silver mouthpiece that gave a sound just as loud as all the others.

If we rely on Virgil and Isidor, the Romans also were familiar with the double trumpet or trumpet with a double bore, similar to the ones we use today. The sound must have been more harmonious than preceding ones. The instrument was two meters long. They also knew the *Saquebute* used by the Hebrews; they called it *Tuba ductilis*.

Mr. G. Kastner says, in his knowledgeable and interesting book⁴⁹, that according to Polybius and Vegece, the trumpet was more universally used among the Greeks. In general, the Romans used it for military purposes; the *Tuba* was used for the infantry, the *Lituus* was used for the cavalry, and the *Buccina* was used with the *Tuba* for the infantry. This ordering of use was not always the same. The frequent contradictions found among those who wrote about this usage are the natural consequence of modifications, according to the period, in military applications and the particular desire of the leaders.

It was usually to the sound of Horns and Trumpets together (*Tubae*, *Cornua*, and *Buccina*) that the general gave the signal to depart, when an army was assembled, the sound for attack was given in the presence of an enemy, and the retreat when luck was

not with them. During combat these instruments were played in order to excite and inspire the courage of the troops. In the camps of the praetors the *Buccina* gave the signal one time for combat for the foot soldiers, and in the camps of the consuls twice. The *Lituus* was used in the same instance for the cavalry. The orders for resting or for the watches, that is to say the night watches, were transmitted by the *Buccina*, from where we get the expressions *Buccina prima*, *Buccina secunda*.. In order to gather assemblies and order silence some authors believe that flutes were used, but others are of the opinion that cornets called *Classica* were used. What's more, we also find references to the use of the *Buccina* for this same purpose.

"During war time", says Polybius, "it is the sound of the trumpets that sounds reveille. At meal time it also sounded near the tent of the general because that is the moment when the guards spread out [disperse]".

When the army was ranked in battle, a special trumpet that was placed near the general was to play first, in order to, without a doubt, transmit the orders of the general to the commander of the first legion. Then other trumpets posted in elevated areas, close to the eagles and the flags, repeated the orders, then all the trumpets would simultaneously give the signal for combat. Hirtius reports, in his history of the African war, that in order not to follow the preceding outline of events, the Roman trumpets gave prematurely the order to attack while Julius Caesar was still deliberating if the time was right to engage the enemy.

Vegece, a long time after Polybius⁵⁰, gives us very detailed information on the different uses of the Trumpet. "The Roman Legion", says this writer, "has all sorts of instruments that are trumpets. The Cornet and the Horn (*Cornu* and *Buccina*). It is the Trumpet (*Tuba*) that in combat sounds the charge and the retreat. The Horns and the Cornets (*Cornua* and *Buccinae*) only intervene in order to augment the noise of war, excite the courage of the combatants and at the end to celebrate the action with their fanfares. Beyond that, when these last instruments are heard, they are not used to indicate action to soldiers. They only gave to the standard bearers signals with which they were familiar. Because of this, when troops needed to march without standard bearers, it was the trumpet (*Tuba*) that sounded. When the standard bearers needed to maneuver, it was the cornets that alerted them. And when it was necessary to go into combat the trumpets and horns together gave the signal. As to the Horn (*Buccina*), it was called the *Classicum*. This noise is an attribute of command because it announces the presence of a general. The Horn sounds before him and also sounds when soldiers are given the death penalty so that it is clear that this execution is being done by his order.

"It is again to the sound of the trumpet that the ordinary guards and the grand guards set up and take down outside of camp, whether it be for going to work or for the revues. The soldiers are organized by what is blown. These different uses are found in exercises and maneuvers so that during war time the soldiers, accustomed to the signals of these instruments, can recognize clearly and promptly obey the order of the general, whether it be to charge or to stop, or to follow the enemy or to retreat."

One thing that now seems perfectly established is that they had several types of

trumpets giving different calls and each one blew this or that signal; making, in a word, the position [job or office] of these instruments that today we call authorized Cornets, Clarions, and Trumpets.

The musicians who played the trumpets were ordinarily called *Aeneatores*⁵¹ and in general, all those who were serving as trumpetists in the armies, no matter what the type of the instrument they played. But that did not keep them from giving those who played the *Tuba*, *Lituus*, *Buccina*, and the *Cornu*, a particular name in rapport with the instrument played. There were the *tubicines* (Players of the *Tuba*), the *liticines* (players of the *Lituus*), the *buccinatores*, (players of the *Buccina*) the *cornicines* (players of the *Cornu*) who were almost a distinct class because of the important services they rendered they enjoyed great privileges among their compatriots and occupied a high rank in the military⁵². Their holiday is celebrated in Rome every year on May 23, a day called *tubilustrium*. That is the day of the consecration of their instruments. During the meal of the leaders, these musicians intervened often to liven up the diners with the bellicose sound of their war trumpets. In this way music was used during the military festivities as it still is today.⁵³

The trumpet was also used in Italy during the middle ages as it was during Roman times. There is no need of any proof other than its longtime usage for the election of popes. In this regard we have an excerpt of a Roman ceremony:

“As soon as a Pope is elected, the 12 trumpets of St. Peter, those of the town and of the different military corps, accompanied by kettle drum and drums, play fanfares during the march of the conclave to St. Peter’s church as well as during the crowning of the Pope. It was above all at this magnificent festival of the past that the trumpets made themselves heard. During the ceremony, at each service, the trumpets played fanfares. It was the only instrumental music during the meal, which is no longer done today. It was especially at the ceremony of the grand jubilee, when it was announced to the Roman people, that the 12 trumpets of the Pope play their fanfares. 12 huntsmen with silver horns joined them to make a lovely ensemble with which to open the jubilee.

“When the Pope goes to St. Peter’s church in grand ceremony in order to open the doors for jubilee, he is accompanied by all the Roman clergy and preceded by his 12 trumpets, who play all the time during the procession. The jubilee finishes with the closing of the holy doors to the sound of the trumpets who accompany the sacred cortege”.

CHAPTER III

Of the Trumpet among ancient and modern
Peoples of central and northern Europe:
Germans, Gauls, Bretons, Scandinavians, etc.,
until the 19th century.

Until the time of the Roman invasion, the countries of northern Europe had often resounded with the terrifying sound of gigantic horns, remains of various species of wild bulls or buffaloes roaming in innumerable herds in their vast forests. While for their part the Romans had received Uri horns from the Gauls for the hunt and the circus, all nations of northern and central Europe, after their contacts with the Romans, generally adopted their victorious Trumpets, then modified them — through the manufacture springing up among them — after the manner of the primitive instruments or according to national taste, and this reciprocal imitation produced new types in large numbers, of which tradition has hardly conserved the names. So that in Hibernia (Ireland) alone, there were seven kinds of Trumpets, of which the *Stuic* or *Stoc* offered the peculiarity of a large opening worked into the side of its very short bronze tube; this instrument distinguished itself moreover by the special use of announcing new moons from atop of towers, as in Judea, of proclaiming feasts, etc. Needless to add that this instrument, almost monotone, was not musical, but of a very loud tone. In fact, the width of the tube's lateral hole did not allow any fingering and reduced still the length of the sound wave. Perhaps it served to direct the sound perpendicularly?

The inhabitants of Caledonia (Scotland) adapted the bronze tube to a kind of bagpipe whose resounding sound excited their martial ardor.

The Cornett, designated in manuscripts of that time by the Latin name of *Cornicina*, seems to originate from Britain (England), as well as the *Gall-Tromba*, etc.⁵⁴ As for the modern peoples of England, and for the nature of the instruments in use during public ceremonies and solemn occasions, we may get an idea of it, from what Henxner reports, from the music with which Queen Elizabeth was entertained while dining. It was performed by twelve Trumpets and two Kettledrums accompanied by Fifes, Cornetts [French: Fifres, Cornets] and single-headed Drums, which all together made the hall resound for a half hour⁵⁵.

The Gauls also had their national Trumpet called *Carnyx*. It was a tube of molten lead and pewter, curved into a semicircle, and ending with a bell in the shape of an animal's mouth. It produced, says Eustathius, quite high tones. Lastly, the Trumpet's effect on Gauls, Germans, Anglo-Saxons, Danes, etc., described by historians, reveals how the all-martial energy of this instrument was well-adapted to the toughness of these bellicose races.

As soon as he would hear the sound of the Trumpet (says Tacitus), the plowman would leave his plow, get his weapons, and run furiously to battle.

The principal sorts of Trumpets in use during the Middle Ages were designated in Latin manuscripts under the names of *Tuba*, *Corna*, *Cornicina*, *Trompa*, and various kinds also figure. We have reproduced most of them (see p. [X]XIV, pl. II, Fig. 5, 6, 7 and 8). The following inscription, written below a drawing of these figures, completes what we have just said about the Trumpet's war usage at that time:

Tuba silent, gladii reconduntur in vagina.

[When Trumpets are silent, swords are returned to their sheaths.]

But the German nation, settled in ancient Germania, gets the distinction of having so to speak created the art of the modern Trumpet, and the skill of its trumpeters, who were honored by the very special favor of their princes and who were presented with numerous and extensive privileges, remained long without equal among the other nations of modern Europe.

It is in 1499, under Maximilian I, that trumpeters formed a corporation under the jurisdiction of a palace marshal. In 1623, the Society of Trumpeters and Kettle-drummers obtained a charter from Emperor Ferdinand II. This charter was successively renewed by Ferdinand III, Joseph I, Charles VI, François I and Joseph II, in favor of able or experienced Trumpeters who distinguished themselves by a particular skill at playing their instruments. They possessed the secret of certain tricks or tonguings which they alone could exercise, and which they were to teach only to those students trained for the institution or association known as *Cameradschaft* (society of comrades). It is from among the members of this Gymnasium that were recruited the Court Trumpeters (*Hoftrompeter*), the Town Trumpeters (*Stadttrompeter*), and the Army [Field] Trumpeters (*Feldtrompeter*).

Various duties were assigned to these musicians. They were to announce the sovereign's meal, during which they to perform warlike pieces for three or four Trumpet parts, which were called *Tricinium* or *Quatricinium*. The presence of these artists was, in addition, mandatory in the processions, assemblies and tournaments to which their lord and master would go. The Field Trumpeters enjoyed great prerogatives; they were very generously paid, and owned expensive instruments and mounts. They often served as couriers and as negotiators⁵⁶.

The chartered Trumpeters of all of Germany were placed under the special protection of the Elector of Saxony, regardless of the immediate jurisdiction of the Prince to whom they were appointed. One mark of the importance which one gave to the Trumpet is that, in those Charters, the art of Trumpet playing is called *Noble* and *Chivalrous*. Therein is expressly said that a Trumpeter must be regarded as a State officer and enjoy the same prerogatives. The musicians' corporation of Trumpet players was so honored and respected that many great Lords had themselves admitted to it; among others, the Duke of Saxony-Weimar was received in the society in 1734, after showing his ability on the instrument. The feast which took place on the occasion was celebrated with magnificence.

The Archangel Gabriel was regarded as the patron of Trumpeters. Every year one celebrated a feast in his honor to the sound of Trumpets and Kettledrums, and in 1730 in Vienna, one celebrated the Jubilee of the confirmation of the Charter granted to Trumpeters in 1630 by Ferdinand II⁵⁷.

Among the Princes of Germany, it was common practice to have eight Trumpeters

and a Kettle-drummer appointed to the first-class courts; one could find at times even as many as twelve and two Kettle-drummers, and in second-class courts, four Trumpeters and one Kettle-drummer⁵⁸. This well-acknowledged superiority of the German Trumpeters made them sought by other nations. In 1722, the King of Portugal, John V, had twenty Trumpeters and two Kettle-drummers under the leadership of a lieutenant sent for at his expense and for his own service. In Portugal, it was common practice, when the King was about to come out from his castle, to go and proclaim it through the streets to the sound of Trumpets. Otherwise, these instruments were to play at this court much the same role as in the Courts of Germany⁵⁹.

It was under the reign of Joseph II, in 1774, that were first introduced the Trumpets and Kettledrums in the Dragoon regiments, which had then been using, as in France, only drums and oboes. The King of Prussia and the Elector of Saxony followed that example.⁶⁰

Near the middle of the 18th century, a very particular style of band appeared in Russia: this band, made up solely of Horns or rather Trumpets curved a bit into a parabole, or even entirely straight, was invented, it is said, by Marshal *Kirilowitsch*, and perfected by a musician from Bohemia, called *Maresch*, director of the court band. This instrumental system initially consisted of a series of hunting horns of various sizes which gave off a single note, and which, in their ensemble, made up a range of three octaves. Consequently, each player needed to count rests for as long as the note assigned to his instrument delayed presenting itself again in the course of the piece. The number of Horns, which was thirty-seven for a three octave range, and which later was forty-nine for a four octave range, finally reached sixty instruments, giving a range of five octaves. The emperor and empress first heard this band in 1753, or, according to others, in 1757⁶¹, at the castle of Ismailow, near Moscow, on the occasion of a great hunt given by the marshal. The lords quickly took a strong liking to this style of concert, so new and so original, and many among them had similarly composed musical corps in their service. It always took, we are assured, three or four years for a Russian lord to form a band of this style. A great number of regiments also were provided with such bands, and have them still today⁶².

In Paris, near the end of 1833, in the Montesquieu concert hall, one got the opportunity to hear this strange band made up of twenty-eight to thirty players, which impressed the audience with the most vivid sensations⁶³.

In the 13th and the 13th [sic] century, and even much earlier, the different kinds of Trumpets are often designated by the old chroniclers who wrote in the Romanic language, under the names of *Trompes* [English: Trumps], *Trompettes* [Trumpets], *Cors* [Horns], *Cornets* [Cornetts], *Bosines* or *Buisines* [Buisines], *Buccines* [Buccinas], *Clarons* [Bugles or Clarions], *Claronceaux* [diminutive of *Clarons*], etc. The *Buisine* differed from the *Trompe* in that it was of a smaller size. The *Claron*, *Claronceau* or *Clairon* [Bugle or Clarion], was again a kind of Trumpet, much smaller, whose mouthpiece and bore were narrower than the preceding; its tones must have necessarily been higher. It seems that this instrument owes its invention to the Moors, since it was

in use among them in the most ancient times; they used it, however, only in the cavalry. Subsequently the Portuguese, having received it from the Moors with whom they had frequent communications, employed it and transmitted it to the other nations of Europe.

In the chronicles of the 11th and 12th centuries, the Trumpets are often mentioned. Historians who have treated of Byzantine history leave us not unaware that most European armies had trumpets, and that such was the case among Oriental troops as well. The historian Michaud, in his accounts of the Crusades, frequently depicts the Christian armies advancing on the Saracens, or returning victorious from combat, with flags flying and trumpets sounding.⁶⁴

The guard of castles or fortresses also used Trumpets, Horns or Bugles/Clarions [French: Trompettes, *Cors* ou *Clairons*], especially for giving the alarm. In the games or tournaments, Trumpets were employed for giving different signals. With a general fanfare, they would first announce the entrance of each knight in the lists; they would then make themselves heard again with each exceptional blow of the lance or sword; lastly, the name of the winner would be celebrated to a great sounding of Trumpets and Bugles/Clarions, such as is evidenced repeatedly in the chronicles where the heroic deeds of knighthood are recounted⁶⁵. It is also by the bellicose sound of these instruments that the royal feasts were enlivened.

The Trumpets which one used in solemn occasions were usually prize instruments. Because when King Charles V marched before Emperor Charles IV, it is said that: "*Les Trompettes du Roy, à trompes de' argent, à panonceaux brodés*⁶⁶ devant alonient, qui pour faire les gens avancer par foiz trompoyent⁶⁷ [The King's Trumpets, with trumpets of silver, with banners embroidered⁶⁶, went on ahead, who, to make the people advance, at times would trumpet⁶⁷.]

In the 14th century, the greatest lords were not only lovers of poetry and of music, but again [were] performers on an instrument much employed at that time: it was the Horn or Cornett [French: *le Cor* ou *Cornet*], sometimes called *Olipiant*⁶⁸ or Knight's Trump [French: *Trompe des chevaliers*], which was no other than a kind of small Trumpet (see p. XXIV, Pl. II, Fig. 10); they devoted themselves to it so much that the one who would play it best was a highly esteemed individual. Among the principal lords of that period, one cites as virtuosos: Gaston de Foix, lord of Béarn, known as Gaston Phoebus; Lord of Montmorency, the Duke of Burgundy; John, Count of Sancerre; Tancarville, Huet of Nantes; but Gaston de Foix outdid them all⁶⁹. These Cornetts took after the Trumpet and the Bugle/Clarion; some were of gold enamel, highly embellished with engravings and sometimes decorated with precious stones. It should be pointed out that most of these cornetts' mouthpieces were adherent to the instrument.

It was near the end of the 15th century, in the reign of Louis XIII, that a Frenchman named Maurice gave the Trumpet the shape which it has today. Later, Moreland, Cassegrain, Muller, Cosniers, and Hasse carefully researched the best methods to be used for manufacturing these instruments⁷⁰.

The Trumpet continued then to be employed in the reign of that monarch, as it had been in the preceding centuries, which is to say that it did not cease to appear in the

ceremonies of sovereigns, princes, lords and knights, as well as in war expeditions; because Brantone reports that in 1498, Cesar Borgia, making his entrance in Chinon, where he was about to have an interview with Louis XII, deployed all the pomp of a luxurious procession, in which Trumpets and Bugles/ Clarions of silver appeared, and those who brought them into play were richly dressed, sounding their instruments continually ⁷¹.

Le Cérémonial [*Court Etiquette*] of France, compiled by Théodore Godefroy, a lawyer in the Paris High judicial court, and published in 1619, leaves no doubt as to the antiquity of the use of Trumpets in France. The reader, whom we refer to this work so as not to elaborate too long on this subject, will find there that in all feasts, tournaments, entries, baptisms, coronations, funerals of the kings and queens of France, from 1467 until 1594, Trumpets appeared as if obligatory; and the instrumentalists were given the same status as the officers assigned to the royal Households and to those of princes. One distinguished, moreover, the Trumpeter-artist from the one who served but to attract the people with the sound of his Trump and proclaim decrees because the use of public noticeboards did not exist then, since printing was still in the cradle. *Le Cérémonial* positively makes itself clear by calling *Trumpet* the artist's instrument, and *Trump* that of the man sounding solely for informing the people. Trumpets thus continued to be in use in our kings' ceremonies as well as in the armies. The following documents, taken from M[r]. G. Kastner's interesting work ⁷², supported by authentic writings, attest it.

In the reign of Louis XIV, says that author, "there were Trumpets (see p. [X]XIV, Pl. II, Fig. 13) in all the cavalry companies. The Trumpeter wore the livery of the king, prince or colonel, or master of the camp, whose coat of arms was usually embroidered on one of the sides of the trumpets' banderole, and the motto on the opposite side. The Trumpeter was exclusively assigned to the captain, with obligation to follow him, not only when he marched at the head of his troops or other detachment, but again everywhere he would ride while in the field. In every regiment also, there was a Trumpet-Major who needed to be an expert at the blare of war and at fanfares, so as to be able to teach his skill to others, especially to newcomers. The Trumpeters, in marches and reviews, like the kettle-drummers, stood at the head of the squadron, three or four steps ahead of the commander. Like them as well, in combat, they were on the wings, in between squadrons, so as to receive orders from the major or assistant-major. The various signals were transmitted by Trumpet calls, which were the *Boot-and-Saddle, on horseback*, the *March*, the *Call*, the *Retreat* and the *Sordino*, so called because it gave the order to march quietly. The Trumpeters were also employed as negotiators, and for this reason, it was required of them to be discreet and intelligent men. In *Travaux de Mars ou l'Art de la guerre* [The Works of Mars or the Art of War] (Paris, 1691), it is said "that the Trumpeter must be a man of stamina and vigilant, so as to be ready anytime to execute the orders of sounding." Later on, it is also said that "the Trumpeter must be a discreet man, especially when he is employed in negotiations, where he must never use any other terms than those with which he has been charged, and never meddle into giving

any advice, so that, in the conferences and treaties, one does not find any ambiguity nor sentiments opposite to those which he has proposed.

[“]In the reign of Louis XIV, the four [Life] Guard companies of the Royal Household Corps each had seven Trumpeters and one Kettle-drummer. In each company, one Trumpeter remained with the King for his private service, with the title of *Trompette des plaisirs* [Trumpeter of the Revels(?)]. There was also a fifth Kettle-drummer answerable to the Corps, who also remained with the King, with the same title. This Kettle-drummer marched at the head of the watch, behind the King’s carriage, beating his kettledrums, just as the Trumpets who marched ahead of the carriage sounded their Trumpets. The four *Trompette des plaisirs* wore a magnificent outfit, provided at the King’s expense. Its foundation was blue velvet, completely brocaded with silver. One could tell to which Company each one belonged from the color of their instruments’ banderoles. That distinctive color was, for the first (so-called Scottish) company, white, and for the others, green, blue, and yellow. These Trumpeter’s duties were to serve with the quarter watch, for example during trips, to accompany the King’s carriage, and to be present at feasts which the sovereign gave, as well as at royal ceremonies, at declarations of war, publications of peace, etc. They were also to be present at all concerts, where Trumpets were required in front of the King, as much on the canal of Versailles as in the castle’s rooms. Consequently, one saw them appear at opera presentations, at the ballets and plays which were given at court; at times they even accompanied the King right into the chapel. Lastly, they were again on duty for the solemnity of the eve or day of the Epiphany, just as was the case in 1693 and 1694, years when Louis XIV celebrated Twelfth-night in Versailles with the King of England and a few princes, princesses and ladies. In all these diversions, the *Trompettes des plaisirs* took precedence of the *Trompettes de la chambre* [Trumpeters of the Chamber]; but the opposite would happen on other occasions. These *Trompettes de la chambre*, which we have just mentioned, were part of the *bande de la Grande Ecurie* [band of the Great Stables]⁷³ They would unite with the four *Trompettes des plaisirs* in all the great royal ceremonies, baptisms, weddings, coronations, funerals and others already mentioned above; as well as when the King would go hold his seat of justice at the High judicial court, or when the flags taken from the enemies were borne at Notre-Dame of Paris.

“Of the twelve Trumpeters in the *Grande Ecurie*, which also called themselves *Trompettes de la chambre*, the *Grand Ecuyer* [Master Equerry] would choose four, called *Trompettes ordinaires de la chambre du Roi* [Trumpeters in ordinary to the King’s Chamber], whose particular duty it was to sound their instruments at the head of the royal carriage’s horses, especially during trips, and when the King entered into towns. Every time the Dauphin would go to the field, of the four *Trompettes des plaisirs*, two would follow him to fulfill their duties as they would have the King. As for the other two, they remained in the service of the monarch. It was the same for the four *Trompettes de la chambre*, whose duties in such a case were to divide up in the same manner. These various practices, relative to the French court Trumpeter’s duties, continued to subsist until about the end of Louis XVI’s reign.”

According to one writer's testimony⁷⁴, the mountain fusilier companies, created in the reign of Louis XIV, in early 1689, to oppose the Catalonian miquelets who were in the service of the Spaniards, had in each company, instead of a Drummer, a *Corneur* ["Horner"] which, says that author, "used a large shell from a sea-snail; so that when these companies, which numbered one hundred, marched together, it created an astonishing rural noise, yet martial." (See p. [X]XIV, Pl. II, Fig. 15). In the carrousel which had replaced the tournaments, and which, introduced among us in the reign of Henri IV, still occasionally took place in France in the reign of Louis XIV, irrespective of the Trumpets, Drums, Kettledrums and Oboes which made up the war band, one would usually resort to a few of these instruments, either for giving more precision to the execution of these knightly displays, images of combat, or for brightening and livening them up more.

By order of Louis XIV, Lully composed Trumpet and Kettledrum pieces for the carrousel, ceremonies and private services to the King, of which a manuscript collection formed in 1705, through the care of Philidor the Elder, ordinary to the King's Music, is preserved in the library of the city of Versailles.

In addition to the frequent use of the Trumpet, as much within the armies as for the pompous ceremonies of kings and princes, it was equally admitted in theater and concert music, and notably in church music.

The most ancient monument which authenticifies the use of this instrument with orchestras is the opera *Orfeo*, composed by Monteverdi, in 1607, that is to say about ten years after the first attempt at dramatic music was made in Florence.

Appearing in this opera's score, *un Clarino con tre Tromba sordine*, a Clarion [French: un Clairon] with three muted Trumpets: the Clarion was a small Trumpet, sounding an octave higher. Before this period, brass instruments served in the theater only to express scenes of war, or of a hunt; they included the Trumpet, the Horn or Cornett [French: le Cor ou Cornet à bouquin], the Sackbut or Trombone⁷⁵.

The first display in France of Trumpets in musical theater took place in 1674, in the opera *Alceste* by Quinault and Lully. These instruments had previously appeared on stage, where musicians who were dressed in theater costumes, had played them⁷⁶. But in 1751, they joined the personnel of the *Académie royale de musique* on a permanent basis. Designated as Trumpeters are the two Caraffe brothers, who in 1767 were also admitted to the *concerts spirituels* [a concert series in Paris, originally of sacred music, from 1725 to 1790]⁷⁷.

The use of Trumpets in church music dates back to an already remote era; the celebrated works of *Händel*, *Bach* and others are an indisputable authority; because the great masters have written Oratorios in which exist solo Trumpet parts of prodigious difficulty in regard to the elevation of the notes, which it would almost be impossible to be able to produce today in an acceptable manner⁷⁸. However, nevertheless, it should be said that at that time the pitch of the orchestras was of a half-tone lower than the one which regulates our tuning today, and that in those compositions the Trumpets never appear but in *D* or in *C*; so the artist, through special study, would form his lips for this

kind of performance, and in addition, would use a mouthpiece which facilitated the emission of high tones, but which on the other hand altered the tone quality. However, the difficulty of attaining those high notes with precision resulted in later abandoning this kind of performance; even in *Mozart's* time, the Trumpet had already taken another direction: proof is that this great master felt the need to modify a few of this instrument's effects in Handel's *Messiah* and *Alexander's Feast* Oratorios, which were performed then in Germany, and for which he felt the need to rewrite a new instrumentation with respect to the taste and instrumental resources of the time ⁷⁹.

The use of the Trumpet has been preserved in the churches of Germany, and [it] still enjoys great esteem, for during divine office one often performs multiple-part fanfares, and sometimes together with the organ. I believe I should report here pieces long known, and dedicated to that effect ⁸⁰.

In France, it wasn't until about 1770 that one made use of more or less improved Trumpets (that is to say with crooks) which the Braun brothers, skillful Trumpeters with the *Académie royale de musique*, brought from Germany; because until then, one had been using but Trumpets in a single key which was either *D* or *C*, and which most of the time were put into play for sounding calls or making announcements. But as the instrument developed, and as through the revolution which was taking place in its manufacturing it became possible to use it indiscriminately in many keys, one began making slide (or pitch-modifying) Trumpets with crooks in *F*, *E*, *E^b*, *D*, *C* and *B^b*. Later on, their scope was extended by adding the keys of high *G* and low *D^b*, *B*, *A*, and *A^b*, whose happy beginnings we first owe to the genius and sagacity of *Rossini*, *Auber*, *Carafa*, *Meyerbeer*, *Halévy*, *Berlioz*, *Ambroise Thomas*, who have given the example of their usage in their masterpieces; and in their imitation other composers have also let this instrument share in the honor of solo and accompaniment, which instrument in France had until then been used so to speak but for war purposes.

It is around the late 18th century and early 19th that one saw the birth of all the modifications and improvements brought to the Trumpet, which have extended the range of its possibilities 1) by the addition of all the keys or crooks, 2) by various mechanical inventions such as slides, keys, pistons or cylinders [rotary valves]. We shall place these inventions in their successive order, and this way prove that this instrument has been so popularized that it has today become indispensable through the important role which it plays in musical performances.

The invention of the slide Trumpet ⁸¹ is attributed to *John Hide*, celebrated English teacher, who lived around the end of the 18th century. This instrument's system is about similar to that of the Trombone, as it is activated by a movable slide which, in the beginnings of the invention, served to lower the range of the instrument but by a semitone or a tone. Through the modification which the author of this method has brought to the English system, by finding a way to give the slide more latitude, the performer has the advantage of possessing one position more, which facilitates the emission of the tone-and-a half (see p. XXV, Pl. III, Fig. 7).

The invention of the Keyed Trumpet is attributed to a German named *Weidinger*,

who took it into his head to pierce the tubes of certain brass instruments, as had long been the practice for woodwinds, and to adapt movable keys to them, by the means of which the instrument possesses a scale as complete and extensive as possible. This artist having applied his system to the *Clairon* [English: Bugle or Clarion], it gave rise to the instruments which we call *Bugle* [English: Flugelhorn], derived from *buffalo* or [French:] *buffle*, because the first *Bugles* [English: Flugelhorns] were doubtless made with the horns of this wild animal. The English adopted the Flugelhorn enthusiastically: its appearance in England dates to 1810, but it was in 1812 that it became widely used there. This instrument became known in France but around 1815 to 1816, and then adopted in all the bands of the infantry and cavalry regiments of the royal guard and of the army. This instrument was perfected by substituting pistons or cylinders to the keys, which give it better tuning and a better sound quality. There are Flugelhorns (or Saxhorns) in high Eb, C and Bb.

There exists yet another kind of keyed Trumpet (see p. XXV, Pl. III, Fig. 9) which was much used in Germany and Italy, before the pistons invaded. This instrument is quite analogous to ordinary Trumpets, save the keys, but it is much less satisfactory with regard to the sound quality which is ever so slightly nasal. In 1827 and 1828, the Gambati brothers, of Italian origin, artists of merit, assigned to the *Académie royale de musique*, were heard to great advantage in many concerts on this kind of Trumpet. But while this instrument was passionately adopted in Germany and Italy, a revolution was taking place in the solution to the problem of brass instruments: it was the sudden sweep of the Piston or Cylinder [Rotary valve], whose initial invention is due to the Silesian *Blühmel* and to the Saxon *Stölzel*, who by different means arrived at the same goal. In Berlin in 1814, *Stölzel* introduced a three-valve chromatic Horn, of which he said he was the inventor, and for which he obtained for ten years, and for all of Prussia, a letters patent and, in addition, his admission as first Horn to the King's Chapel. This ingenious invention was also applied to the Trumpet as well as to the entire family of brass instruments, and which later gave birth to so many instruments of different shapes and effects since called *Saxhorns*, from the high Soprano to the Double-Bass.

The valve Trumpet which served as type and starting point to the manufacturing of these instruments was not known in France until about the end of 1826, and it is in the early days of October of that same year that the celebrated *Spontini*, then General Music Director to H.M. the King of Prussia, sent M[r]. Buhl, Chief of Music for the *Gardes du corps du Roi* [King's Life Guards], as well as to myself, who was also a member of that band, a Trumpet of this new system, but which left to be desired with regard to the sonority and to the precision of the valves' play. It was at this point that the whole of French manufacturing put itself into a flutter at the arrival of this new and ingenious invention, and that it succeeded in eliminating the original inconveniences. Having been the first, so to speak, to use this new Trumpet, I was able to appreciate its advantages, even though I recognized the pressing need to bring modifications to its primitive manufacture. Having reached the desired goal, I got the opportunity to have this instrument heard to great advantage, which instrument, in 1827, was first used in the

orchestra of the *Académie royale de musique*, in the opera *Macbeth*, composed by M[r]. Cheland, which got but few showings because of the arrival and splendor of Rossini's *Moses*, one of the masterpieces of this great master. It was but two years later, in 1829, in the *William Tell* opera, that the valve Trumpet reappeared once again, to figure from then on in many other works, notably in *Robert le Diable*, *La Juive*, *Les Huguenots*, etc., etc.

The arrival of this new instrument gave birth, around 1832, to the *Cornet à pistons* [Cornet], a kind of small Trumpet which our French instrument makers thought up and which they started manufacturing successfully; at its beginnings, it was enthusiastically adopted by the Parisian public, and it was accepted in Germany but long after its invention.

In the overview of this Historical Summary, one has been able to follow step by step all the progress and various uses of the Trumpet, from its origin to present day, and to see that from time immemorial this instrument has followed the civilization of peoples, serving always the same purposes, and has arrived today at its apex of manufacture and of musical performance resources, which for a long time it will not be possible to surpass.

Plate I

Trumpets In Use Among the Peoples of Antiquity

1. *Chatzotzeroth* or *Chazozera* of the Hebrews and Egyptians.
2. *Salpinx* of the Greeks, *Tuba directa* of the Romans.
3. *Schophar* of the Hebrews, according to Wence.
4. *Keren* of the Hebrews, according to Forkel; *Keras* of the Greeks, *Cornu* or *Buccina* of the Romans.
5. *Buccina*, according to Forkel. This instrument derives from the marine Conch; the Romans made bronze Buccinas by preserving the primitive shape.
6. *Lituus* of the Romans, according to Forkel, employed in the cavalry.
7. Another *Lituus* taken from Montfaucon, according to Fabretti.
8. A kind of *Tuba* which, following La Chausse, in his *Musoeum romanum*, served in funerals, called by the Greeks *Tymbaulas*, by the Latins *Siticines* and sometimes *Sicinnistroe*.
9. *Buccina* or *Tuba curva*, frequently used in religious and triumphant ceremonies.

10. Another *Buccina* or *Tuba curva*, serving the same purposes among the Romans.

Plate II

Principal Trumpets In Use Among Various Nations, in Different Eras and in the Middle Ages.

1. Curved Trumpet of the Chinese, according to the figure given by Barow, in his *Voyage en Chine* [Voyage to/in China].
- 2,3,4. Other kinds of Chinese Trumpets.
- 5,6. *Cornu* or Anglo-Saxon Horn, according to Joseph Strutt.
7. *Tuba cornicinum*, oenea. Trumpet of the Anglo-Saxons, according to Joseph Strutt. It was of metal and as tall as a man.
8. Another *Tuba cornicinum*, Trumpet of the Anglo-Saxons, according to Joseph Strutt. It was of metal and of the same size as the preceding; they used it sometimes by resting it on a fork.
9. Seigniorial Horn from the Middle Ages, of gold or silver.
10. Warrior Horn of the Middle Ages.
11. Trumpet from the time of Louis XII, according to Father Daniel.
12. Trumpet of the German cavalry, mainly used in the 16th and 17th centuries.
13. Bugle/Clarion [French: Clairon] or Trumpet still in use in the French cavalry, in the reign of Louis XIV.
14. Turkish Trumpet, called *Surme* in Egypt, according to De Laborde and Villoteau.
15. Conch, or Trumpet of the Catalonian fusiliers in the service of France, in the reign of Louis XIV.
16. One of the Trumpets in use among the Indians, and mainly on the coast of Guinea, constructed in ivory.

Plate III**Modern Trumpets**

1. Cavalry Trumpet, in D and E^b in a single turn, in use until the end of the 18th century.
2. Cavalry Trumpet, in E^b, bent back in two turns, in use in early 19th century and to this day.
3. Infantry Bugle.
4. So-called *Trompette d'harmonie* [orchestral Trumpet], from the key of high G to the key of low A^b.
5. Another *Trompette d'harmonie* [orchestral Trumpet], from the key of high G to the key of low A^b.
6. Slide Trumpet, English system, from the key of F, to the key of C.
7. Slide Trumpet, French system, from the key of high G to the key of low A^b.
8. Keyed Trumpet, called Italian, German system.
9. Keyed Flugelhorn or Bugle [French: Bugle ou Clairon à clefs], under the denomination of keyed Trumpet.
10. Three-valve Trumpet, Stölzel's system, whose primitive invention is attributed to the Silesian Blühmel, model sent to France by Spontini, in 1826.
11. Two-valve Trumpet, French system, put into operation in 1828.
12. Three-cylinder Trumpet, German System.
13. Three-valve Trumpet, French system.

Note: We felt having to show here but piston or cylinder Trumpets whose mechanism rests on the most generally widespread systems, and whose shape varies according to the taste of the countries and of the instrument makers who manufacture them.

Trompettes en usage chez les Peuples de l'antiquité.

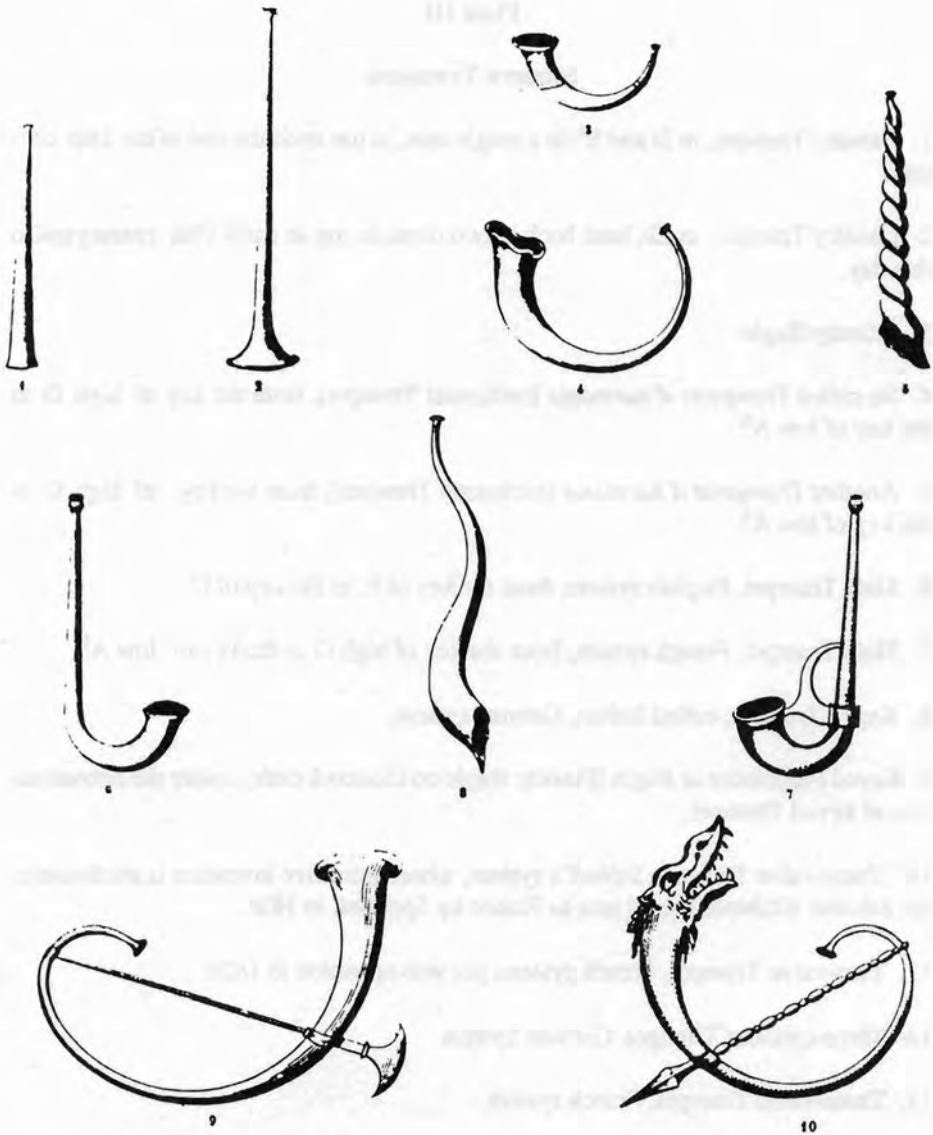


Plate I

Principales Trompettes en usage chez divers Peuples, aux différentes époques et dans le moyen âge.

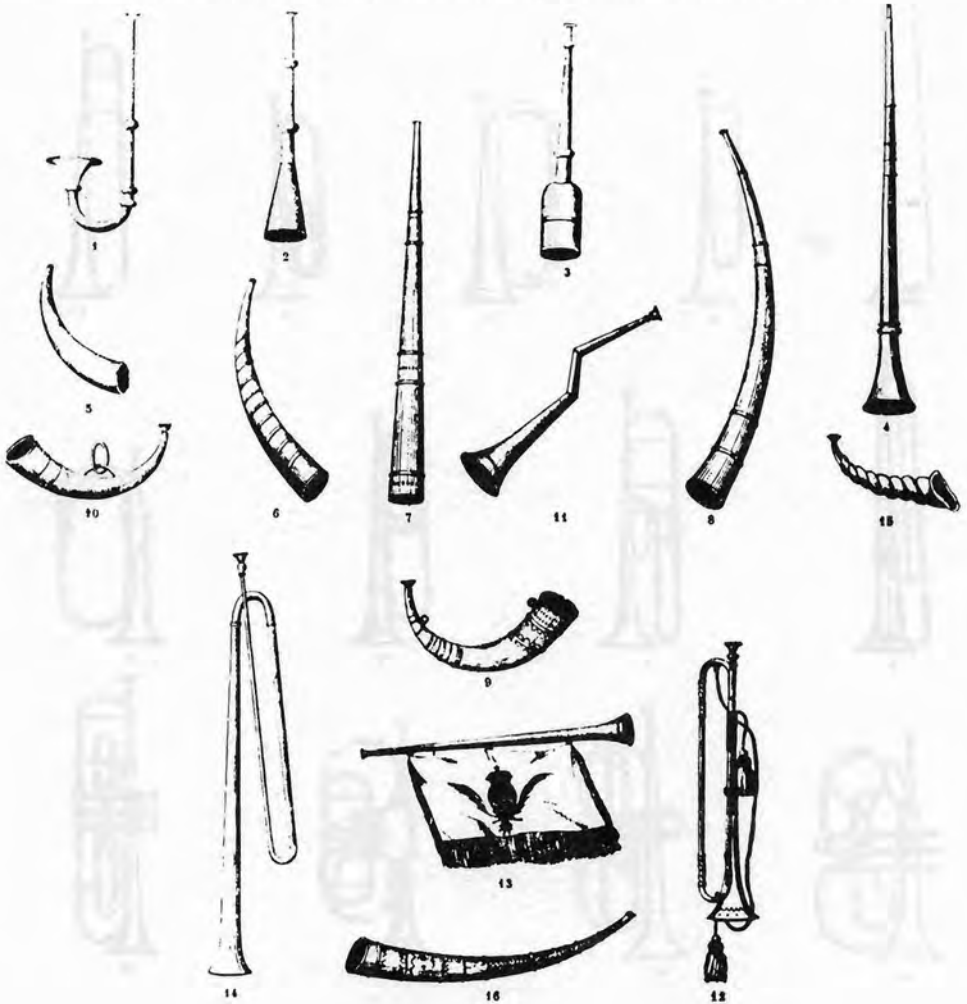


Plate II

Trompettes modernes.



1



2



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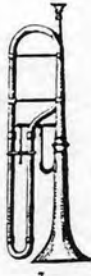
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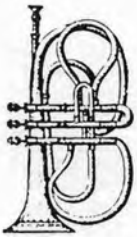
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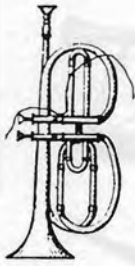
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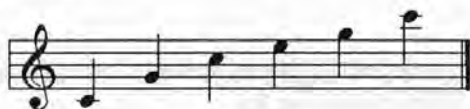
Plate III

Range Which the Antique Trumpets Must Have Had in Relation to Their Dimensions and Proportions.

The *Chatzotzeroth*, the *Schophar*, and the *Keren* of the Hebrews and Egyptians (see page XXIII, Pl. I, Fig. 1, 3 and 4) must have been in a very high key, that is to say in high F or G of our pitch, or the octave of our modern Trumpet, and must have produced but the following notes:



The *Salpinx* of the Greeks, the *Tuba directa*, the *Buccine*, the *Lituus*, as well as the *Buccina* or *Tuba curva* of the Romans (see p. XXIII, Pl. I, Fig. 2, 5, 6, 7, 8, 9, and 10), having more development than the preceding Trumpets, must have been in high D or C of our pitch, that is to say in unison with the modern Bugle, which one uses now in the infantry regiments, save the modification of the various timbres, and must have produced the following notes:



Of the Range of Modern Trumpets

General range of the Cavalry Trumpets from the 18th and 19th century (See page XXV, Pl. III, Fig. 1 and 2.) and of the so-called *Trompette d'harmonie* [orchestral Trumpet]. (See page XXV, Pl. III, Fig. 4 and 5.)



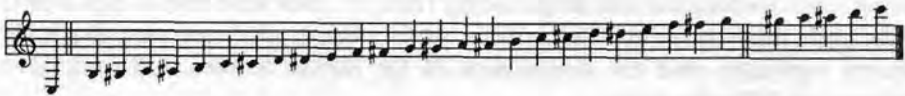
General range of the Slide Trumpet, English system. (See page XXV, Pl. III, Fig. 6.)



General range of the Slide Trumpet, French system. (See page XXV, Pl. III, Fig. 7.)



General range of the keyed Trumpet, of German invention. (See page XXV, Pl. III, Fig. 8.)



General range of the keyed Flugelhorn or Bugle, under the denomination of keyed Trumpet. (See page XXV, Pl. III, Fig. 9.)



General range of the 3-piston or cylinder Trumpets, German and French systems. (See page XXV, Pl. III, Fig. 10, 12 and 13.)



General range of the 2-valve Trumpet, French system, put in operation in 1828, but abandoned since three-valve Trumpets have been perfected. (See page XXV, Pl. III, Fig. 11.)



TRUMPET METHOD

INTRODUCTION

One was able to see in the Historical Summary, that the Trumpet was passionately cultivated from remotest antiquity, however it was long neglected in our orchestras, on account of the resources it can offer as an accompanimental instrument; the development of these resources, and the systematic use which one makes of them, is of a very recent date. The mechanism of the Trumpet, simple in appearance, presents nevertheless rather great difficulties; because, deprived of the advantage of fingerings as other wind instruments are played, the Trumpet must traverse the scale of its sounds only by the pressure of the mouthpiece upon the lips, graduated proportionally. The sound of the Trumpet is very capable of captivating and winning over all beings endowed with some sensitivity; its timbre, clear and silvery, is not devoid of pleasure, even for delicate ears, if one sounds it artistically, but this art is acquired only by laborious studies, for the rebellious nature of the instrument demands a great aptitude coupled with a persevering willingness to become a master of it. Consequently must he who intends to study the Trumpet have, above all, a very strong calling; be endowed moreover with a good constitution; have well-arranged teeth upon which the mouthpiece rests, and a favorable shape of the tongue and lips. Knowledge of solfege is indispensable to him because he must combine a good musical organization [training] with the theoretical notions which permit him, before emitting the first sound on the instrument, to solfege with ease and accuracy. It often occurs, in fact, that after having counted several measures of rest, and passed through some modulations, there is the matter of attacking instantly a single note, which often determines a new modulation in the score; then the instrumentalist, if he is not able to appreciate the intervals which each key or crook produces, lacks the precision to express the intentions of the composer. Moreover, the nature of the Trumpet in not permitting much variation in its music, which is extremely simple, so the simultaneous

study of another instrument, whether it be piano, violin, or violoncello, will hasten the development of musical faculties. I invite young students to impose upon themselves the obligation to study one of these instruments concurrently with the Trumpet.

For about a half-century, the shape of the *Trompette d'harmonie* [orchestral/musical trumpet, as opposed to field trumpet] has been undergoing diverse changes. From straight, which it was originally or, if you like, folded back directly on itself, it was made half-circular, or curved in a half-circumference which one commonly called a half-moon, then completely circular like a small Horn. These two models offered the performer enough facility to obtain some tones and semi-tones, by the use of the hand in the bell (means to which one no longer resorts since the invention of chromatic Trumpets). It is the year 1826 which dates the abandonment of circular trumpets in the orchestra of the Opéra^[82], and the restoration of straight trumpets, whose usage has been re-established today throughout France, and it has been recognized that the sound which they project directly, more abrupt, more incisive than that of the circular trumpets, better retains the instrument's essential character and is much preferable.

The *Trompettes d'harmonie* are ordinarily in high G, and one adds to them keys or crooks for F, E, E^b, D, D^b, C, B, B^b, A, and A^b.

People had long been content to use six keys or crooks, which are from the lowest, B^b, C, D, E^b, E and F; but modern composers, since Rossini, have, by his example, inserted into their works, trumpets in the above-named keys.

In orchestras, one almost always uses Trumpets in pairs; and sometimes even in fours, but then often disposed in two different keys. Regarding the performance of the different Trumpet parts, in my Method I will not admit the principle established for the Horn, that of particular study for each of them. I claim that the well-practised trumpeter can perform them without distinction, except for the rare advantage which nature will have given to some to produce high notes with great facility; the single superiority of talent will ordinarily designate the artist to whom one can entrust the performance of the first part. I will leave, therefore, to skill the benefit of performing one or the other part equally; this task, furthermore, will be rendered less difficult by the mouthpiece model which we have adopted, which forms the medium between those who are especially disposed to the low or the high register.

Cavalry fanfares are also written in four parts, but for Trumpets in E^b in unison, designated as such: First Trumpet, Second Trumpet, Third Trumpet or *Principal*, considering that it is the part charged with performing the rapid double-tongued passages, arpeggios and variations placed in a fanfare. The Fourth is called *toquet* or *toccato*.

The Italians designate Trumpet parts in the following manner:

- Clarino primo** ... or First Trumpet
- Clarino secundo** ... or Second Trumpet
- Tromba prima** ... or Third or Principal
- Tromba secunda**... *Toccatto*, or Fourth Trumpet

One would have an incomplete idea of the Trumpet if one did not conceive that it combines, to the sublimeness and incisive brilliance which essentially belong to the original and fundamental type of the instrument, that which electrifies, so to speak, men and horses on a battlefield, also other varied and even entirely opposite qualities. I could cite a number of passages where the introduction of the Trumpet has produced the most pleasant effects without troubling the calm and without altering the softness which must reign there. The change of tonality brought by each of the crooks gives to the composer the possibility of obtaining the variety of timbres which he could need for inflecting or coloring his effects in diverse ways.

In imposing upon myself the task of writing this method, I have had as a goal to preserve and to propagate, by developing them, the principles of an instrument which it would be unfortunate to let fall into oblivion, and whose traditions could not be lost without harm to the interests of musical art. No! the original principle of the Trumpet must never be blotted out by the modern inventions of pistons and cylinders [double-piston valves, see picture on p. XXV], which have given birth to new instruments which can serve, it is true, to enrich instrumentation, but will never replace, with respect to the purity and clarity of sound, the natural Trumpet, so much appreciated in its simplicity by composers of intelligence and taste, and of which I will generally compare the use in scores, to a brilliant and vivid color placed on the palette of a painter, who uses it only from time to time for obtaining sparkling lights.

In short, I will say that it is impossible to become a skillful trumpeter, in any style, if one does not begin with a complete study of the natural Trumpet. Would it not be, in fact, in opposition to all further progress, to devote oneself at first to the study of an instrument which offers the mechanical help of cylinders and pistons, instead of practicing to conquer all the difficulties of articulation solely by the play of our organs, whereas it will require hardly a few moments to master the mechanism of all possible systems of Trumpets, for those who have already obtained the precision of the attack of the sound, that is to say the most difficult thing, the longest to acquire on the Trumpet?

Finally, in this Method, I have forced myself to show with all the clarity to which they lend themselves, the precepts of an art to which I have devoted all of my existence, convinced in advance that students will be able to follow them step by step: pleased to guide them in this career, if I may smooth out their obstacles and work towards their success!

FIRST PART.

Of the Sound and its principal modifications.

All the vibrations of the ponderable matter which take place at a certain speed, transmitted to the organ of hearing, give cause to the perception of *Sound*. Of the

isochronal vibrations whose intervals are regular and appreciable, simultaneous or successive, distinguish *musical sound* from other sounds or noises which result from vibrations which are more or less confusing.

All the modifications of sound relate to four principles, namely:

Pitch, volume, duration, and timbre.

Pitch, that is to say the degree of height or depth of the sound, results from the greater or lesser speed of sound vibrations. The distinction of sounds is therefore established by their intervals. The intervals of musical sounds are regulated upon a scale of proportion whose normal type is in nature. The degree of this scale which corresponds to the *fundamental sound* of an instrument is the pitch from which this instrument borrows its proper name. Thus, Trumpet in *C*, Trumpet in *D*, etc. are those whose lowest pitch or tonic is a *C* or a *D* in the diatonic scale. The tonic of the Trumpet is determined by the length of its tube, which will always be in inverse relation to the height of the pitch; so that one lowers the pitch of the instrument by the addition of tube lengths determined by the intervals of tonics named *Trumpet keys* or *crooks*. Now, one obtains the tones starting from the low register, gradually increasing mouthpiece pressure during the emission of the sound, and proportionally to the intervals. In fact, the stronger the mouthpiece pressure upon the lips becomes, the more the tension and tightening of the lips increases, the more sudden the inrush of air exhaled into the mouthpiece cup, the faster the oscillations are impressed into the air column contained in the body of the instrument, the higher the sound; reciprocally, the weaker the mouthpiece pressure, the lower the sound.

Volume is in direct relation with the oscillation amplitude of the sound waves; and, whereas the pitch is dependent on the length of the canal, the bore is that which influences the volume: moreover, sounds are produced with force or with sweetness, according to the vigor or softness of the tonguing, and following the pressure of the air contained in the respiratory tract.

In relation to *duration*, a large volume of air permits the support of the sound with the same degree of force, for a long time. The volume or the force of the sound and its duration have no other limits but those imposed by the power of our organs, of which skill alone knows how to make the best use. The artist must above all practice to give to the sound all the ring and all the energy possible; to move with ease from the loudest sounds to the softest, and among all degrees in between.

The *timbre* is, in all sounds, that singular quality which they [the sounds] retain from the very nature of the agent which produces them: one says, elliptically, the timbre of silver, of brass [copper], of wood, etc. In this respect, each type of instrument has its characteristic timbre, which does not prevent us from observing individual differences; and just as the human voice offers many varieties, each instrument, each instrumentalist, in the playing of the Trumpet, produces a quality of sound which is his own. The most beautiful sound, said J.-J. Rousseau, is that which unites softness with brilliance. The state of health or sickness influences [the sound] notably: which completes the analogy with the timbre of the voice. We have in fact, often observed that most illnesses of the

nasal cavities, of the throat and of the chest, alter the quality of the sound.

Persons with a weak and delicate constitution rarely have, even with the best principles, a beautiful timbre on the trumpet. So much the more must it be bad, when, to this defect, one adds a badly placed mouthpiece and an incorrect manner of emitting the sound.

Of the Mute.

The *mute* is a means to which one has recourse to diminish the volume and to change the timbre of the sound. But the application of this means to the Trumpet, which gives it a sort of strangeness, is much less pleasant than its application to stringed instruments, upon which the effects which result are delicious.

The origin of the Trumpet mute must be quite old; because P. [Père— Father] Mersenne made a mention of it in his work on music and instruments, which dates from 1636. The picture he gives absolutely resembles a small Etruscan vase with a long neck. It is made of a piece of wood hollowed out on the inside and bored out at both ends. The widest and most hollowed-out part is that which is introduced into the bell of the instrument. The contact of this foreign body has the effect of paralyzing the vibrations of the limb of the Trumpet, and of producing a nasal sound, by a profound alteration of the timbre of this instrument. Another inconvenience results from the wooden mute, as indicated by Father Mersenne: it completely disturbs the tuning of the instrument, raising it one tone. Thus, to play in *E*, it would be necessary to use the Trumpet in *D*, and so on for all other keys, and without certainty of perfect tuning. Later, one tried to make mutes out of pasteboard, of a considerably larger volume, in the shape of a truncated cone; but one has since almost renounced these artificial means, because one has recognized all of its inconveniences: also it is hardly but in funeral ceremonies, those which are assisted by field trumpets, that one can appreciate today the effects of the mute. Nonetheless there exists in several scores, among which those of Mozart, pieces where the mute is expressly imposed on the trumpets.

To obviate the principal inconveniences of the aforementioned mutes, we have imagined a means which consists quite simply of a disc of cloth, pierced with a circular hole in the center, about two centimeters in diameter, and fitted on the circumference with a sleeve in which slides a draw-cord which serves to attach the mute to the rim of the bell. This incomplete diaphragm mutes and veils, so to speak, the sound, but does not disturb at all the tuning of the instrument.

I will say, in short, that the best mute for the Trumpet is the talent of the artist who modifies the volume of the sound at his will.

Of Articulation by tonguing.

The tongue is to wind instruments, and to the Trumpet especially, what the bow is to string instruments, upon which one articulates the notes by the striking of the bow; one must articulate them on the Trumpet by the striking of the tongue. To have an accurate idea of tonguing, one must conceive that it is by it [the tongue] that the sound is interrupted: then will one understand that the tongue is active but during the moments of silence, that is to say in the intervals of sound which it cuts off, by settling itself on the edge of the lips and on their internal surface, principally of the upper one, in order to attack it again by retracting. Thus is the sound articulated, following the backward movement of the tongue.

One articulates by the *single tonguing*, by pronouncing the [French] syllable *tu* into the mouthpiece, when one wants to attack the sound with force, and the [French] syllable *du* for attacking softly, without distinction of any mode of tonality, that is to say on all notes without distinction, whatever their pitch or value. If one pronounces into the mouthpiece, and without interval, the [French] polysyllabic series *tu tu gu du*, or this one, *tu tu gu du tu gu du*, one thus achieves the *double-tonguing*, commonly called *trumpet tonguing*. Articulations of this style are in fact particular to the Trumpet, and come down to three types made up from the three polysyllables named above.


Double-tonguing is especially complicated; and in order to acquire clarity and brilliance, it must first be worked at in a moderate tempo, and its speed accelerated imperceptibly, until one arrives at possessing it perfectly. It is not necessary to always have the instrument on the mouth for this; one can practice with good results by pronouncing the indicated polysyllables tacitly into the mouthpiece alone.

Of a few Modes of articulation indicated by the accentuation.

Articulation, whose principal modes have been described in the preceding chapter under the name of *tonguing*, *single* or *double*, is still susceptible to certain modifications of which the most sensitive are indicated in written music by particular symbols or accents.


All the nuances of style, which varies to infinity by serving as an interpreter, in musical language, of all sentiments, must be reflected in good articulation; it should neither be attempted to assign precise rules to them, since these innumerable nuances escape analysis and definitions. We shall limit ourselves then to explaining the significance of accents placed upon the notation for indicating the mode of articulation, leaving to the artist's feeling the distinction of elusive nuances that emerge from the excellence of his organization [training], and [which] pour out on the performance all the grace and brilliance to which it is susceptible.

Three signs suffice to meet the indications concerning articulation on the Trumpet, namely: the *coulé* [slur], the *piqué* [staccato], and the *détaché*. [staccatissimo].

The sign of the *coulé* [slur]  indicates that the notes over which it is placed must be tied together, that is to say to follow one another without interruption, and result, consequently, in a single emission supported for the entire duration of the slur. It suffices then, in order to make the slur, to address the first note well, and to produce those which follow with the same impetus.

The *piqué* [staccato] (.) is marked by a dot placed above a note which must be made to stand out by striking it without any dryness.

The *détaché* [staccatissimo] (▼), figured by a vertical accent, shows that the note must be clearly separated with a tonguing which is dry and cleanly cut.

Dots topped by a slur  are ordinarily put over notes which, though sustained, are nonetheless to be articulated with very soft tonguing.

Of Breathing.

Breathing is that action by which air alternately enters and leaves our lungs by the natural tracts. The act of breathing is thus composed of the *inspiration*, during which air enters into the air tracts, and of the *expiration*, during which it is rejected to the outside. This act is thus accomplished by two movements different in the sense that one is the inverse of the other.

The inspiratory motion consists of the active expansion of the chest; that of the lungs is the consequence of it.

The cessation of the inspiratory motion gives place to the expiratory motion, which operates by the collapsing of the chest and the lungs, with or without the participation of muscular forces. These two movements, inspiratory and expiratory, deserve the total attention of the trumpeter, who must modify them as needed. They are in fact susceptible to great variation, and it is only by practice and force of habit that one achieves to appropriate them for the use of wind instruments without tiring.

Two forces interdependent on each other ordinarily work together in the inspiratory motion and in the enlarging of the pectoral cavity. The first dilates the chest by raising the ribs, and the other increases its depth by lowering the diaphragm and compressing the abdomen; these two forces act simultaneously, but not always equally, in inspiration.

The projection of the abdomen is especially noteworthy and wins in expanse over the elevation of the chest, in the calm of sleep and rest; but at the beginning of the act of screaming or of making an effort, the expansion of the chest is pronounced all the more.

So is it that the *inspiration*, in the playing of wind instruments, must be achieved by the sudden elevation of the greatly expanded chest, in order to prepare a well-controlled *expiration*, active and strong, or prolonged as needed, and interrupted by tonguing in the emission of successive sounds.

Without a large capacity of air, in fact, which one should skillfully be able to compress and save over a long time, there is neither strength nor timbre in the playing of wind instruments, no more than in the voice; further, it is impossible to phrase well

in performance. Inspiration must be made as much as possible upon a [musical] break in the melody before the breath is entirely spent.

Is it not superfluous to add that the tongue momentarily displaced, and the mouth for an instant half-open during the inspiration without leaving the mouthpiece, recover immediately, before the expiration, the position which permits the emission of the sound; that is to say that the lips tighten a bit and that the tip of the tongue comes to rest behind them and their opening?

We cannot recommend too much to students to avoid blowing hard from the chest or the cheeks, in the manner of the ancients, because it is impossible so to articulate with elegance and precision; and we advise them to practice making large inspirations and to prolong expiration as much as possible, conforming moreover, concerning breathing, to the precepts put forward in the excellent Vocal Method of the Conservatory.

About the Manner of writing employed for the Trumpet.

Music intended for the Trumpet is notated on the *G clef*, which is its true pitch. In ancient music, one often employed the various *C* clefs, principally the *clef of C first line*; in order to represent the Bass part, the part of Principal or third part, in the pieces which have several Trumpet parts. I have observed that in his scores, Grétry often employs all clefs in order to represent the tonality of each crook.

But in whatever key a piece may be, the Trumpet parts are written ostensibly and indeterminately in *C*, which *C* becomes successively *D, E, F*, etc., according to the key or crook placed on the instrument. The proportions [between notation and actual pitch] are calculated in a manner such that each key carries in its natural scale the sharps and flats which are characteristic to it. It suffices then to indicate the name of the true tonic, and to write at the head of the piece: *Trumpet in C, Trumpet in D*, etc., without putting any sharps or flats in the key signature.⁸³ The instrumentalist can then imagine for each key or tuning crook a particular key which will represent the countenance of the real notes, such as they are indicated comparatively on the following table [Dauverné's] (page 7):

Of the general Range of the Trumpet, and that of each of its keys or crooks, according to their scope of performance.

The range of the Trumpet varies according to its different keys: as the pitch of the key rises, the boundaries narrow, because the necessary pressure of the mouthpiece on the lips, increasing in proportion to the rise of the sound, arrives at a degree such that it can no longer be endured by the lips.

General Range of the Trumpet.



OBSERVATIONS.— The lowest *C* is practicable and makes a good effect but only in the [harmonic] series of the high keys.

High notes past *G* are attainable but in the series of the low keys; still it is with much difficulty, and not without uncertainty: hence one must exclude them from the normal range. In the past, one made use of these high notes, primarily in the first Trumpet part, in brass bands; but it should be noted that the artist who was charged with this first part barely obtained them, with a mediocre tone quality; though used to playing the instrument always in the same key, which was *D* or *E-flat*, keys used for fanfares, and moreover, equipped with a mouthpiece conducive to the emission of high notes, still did he meet, by the effect of this exclusive practice, with very great difficulty in emitting low sounds. Already, in an era gone by, this style of performance had been abandoned, and especially ever since the principal melodies in brass bands have been given to the Horns, Bugles and Valved Cornets who offer, in truth, more varieties and options in certain respects, but which have caused the cavalry brass bands to lose all the brilliance and martial vigor which they had in bygone days, above all in German bands, where the combination of several pairs of Trumpets in different keys offered the advantage of being able to compose pieces that were extremely interesting. Altenburg, a German author already cited, speaks of three types of Trumpets in use in the past within armies, and which he designates thus:

First: **Trumpet in G**, called English Trumpet.

Second: **Trumpet in F**, called French Trumpet.

Third: **Trumpet in D**, called German Trumpet.

It is likely these various Trumpets were exclusively reserved for the calls of the cavalry orderlies of these various nations.

Today the keys or crooks of the orchestral Trumpet are classified into three distinct series, namely:

Low keys, Middle keys, High keys

FIRST SERIES.— LOW KEYS...
 A^b
 A
 B^b
 B

SECOND SERIES.— MIDDLE KEYS... C
 D
 D
 E
 THIRD SERIES.— HIGH KEYS.... E
 F
 G

The following table will give an exact idea of the range belonging to each key or crook, beginning with the lowest key of the instrument.

RANGE OF EACH KEY OR CROOK
 of the orchestral Trumpet

FIRST SERIES, LOW KEYS

| | |
|---------------|---|
| Key of A-flat |  |
| Key of A |  |
| Key of B-flat |  |
| Key of B |  |

SECOND SERIES, MIDDLE KEYS

| | |
|---------------|---|
| Key of C |  |
| Key of D-flat |  |
| Key of D |  |
| Key of E-flat |  |

Use the high F & G only in Fortes [loud passages]

THIRD SERIES, HIGH KEYS

| | |
|--------------|---|
| Key of E |  |
| Key of F & E |  |
| Key of G |  |

Use the high D only in Fortes [loud passages]

RANGE OF TRUMPET PARTS
for the special Brass Bands of the cavalry.

SYNOPTIC TABLE
of clefs applicable to the Trumpet's keys or
crooks, put in relation to the
pitch of the orchestra

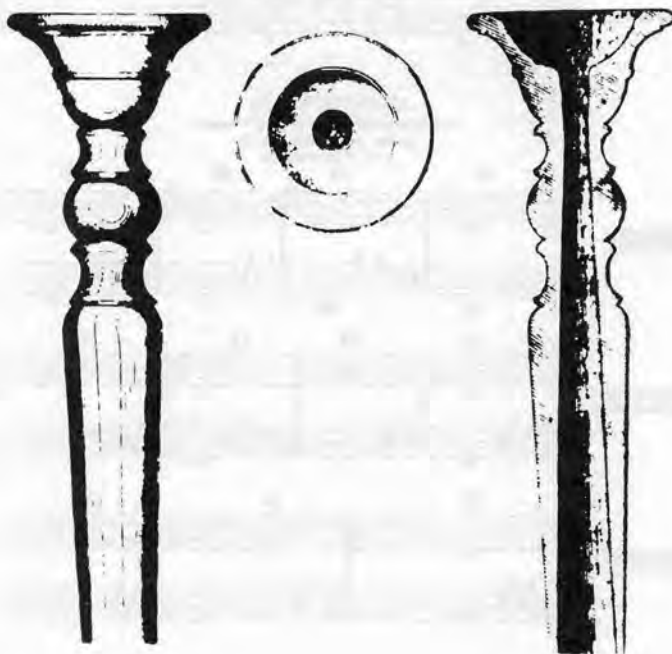
| | | | | |
|--------------------------------|----------------|----------------|----------------|----------------|
| | A ^b | A ⁿ | B ^b | B ⁿ |
| FIRST SERIES (LOW KEYS) | | | | |
| SECOND SERIES (MIDDLE KEYS) | | | | |
| THIRD SERIES (HIGH KEYS) | | | | |

Of the Mouthpiece and of its proportions.

It is impossible to outline the precise rules for the selection of a mouthpiece, considering that the mouth and the lips offer numerous varieties of conformation among various subjects. The same mouthpiece could never be equally suited to all, but it must offer some modifications relative to these individual differences, of which I will confine myself to indicating here the two principal ones, by saying: that a wide mouthpiece suits those who have thick lips, and a narrow mouthpiece those who have thin ones. Let us

observe, however, that a small mouthpiece produces only a feeble tone of a mediocre quality, and that high notes are obtained with more difficulty on a wide mouthpiece: so that one could not, without inconvenience, deviate much from the ordinary or medium proportions. This is why I will give hereafter the approximate proportions of a good mouthpiece, equally appropriate to making low notes full and sonorous, and to facilitating the emission of high notes, and which is according to the model we use, which generally appears to suit people who devote themselves to the study of the Trumpet.

Modèle d'Embouchure.



Model of Mouthpiece

One distinguishes five parts of a mouthpiece: first the rim, upon which the lips rest; it must be flat and lightly rounded at the edges; second the cup, which receives the volume of air necessary to the emission of the sound; third the throat or opening, which, according to its size, determines, as it were, the instrument's quality of timbre; fourth the

backbone or prolongation of the cup; fifth the shank or duct.

The best mouthpieces are ordinarily made of brass [copper]; sometimes one covers the rims as well as the cup with silver, but it is rather preferable to gold- or silverplate them entirely, so as to avoid the contact with brass [copper] which is unpleasant and sometimes dangerous.

Dimensions of the Mouthpiece.

| | | |
|--|-------|-------------|
| Exterior diameter from one edge to the other | | 28 mm. |
| Cup diameter | | 19 |
| Cup depth | | 8 |
| Diameter of throat or opening | | 5 |
| Width of the rim from the interior to the exterior | | 5 |
| Interior diameter at the end of the shank | | 9 |
| Total length of the mouthpiece | | 9 cm. 5 mm. |

Of the Position of the body and the holding of the instrument.

The student, seated or standing, is to hold the body straight, immobile, and without any discomfort. If he stands, which is preferable in the beginning of the studies, he is to avoid spreading the legs, in order to conserve all balance and strength which the organs of the body require in the act of breathing. He is to make the weight of the body bear on the left hip; and, by drawing the shoulders back, he is to give the respiratory organs all the necessary freedom.

As the head must always be fixed, it is important to place the music at eye level, while avoiding to move the instrument's bell near it; this would muffle the sound.

The instrument is to be held horizontally by the right hand, which is to grasp it near the middle, closer, however, to the mouthpiece than to the bell, in order to be able to steady and direct with precision the pressure of the mouthpiece on the lips, which is of great importance, since the degree of this pressure determines, so to speak, the intonation.

I will add the express recommendation to never contract any bad habits, such as slouching, inclining the head, lifting the shoulders, etc. One must even attempt to take on the most appropriate and natural manners, which will contribute to the success of the artist.

Of the Placement of the Mouthpiece on the lips and of the way to produce sounds.

The mouthpiece is placed directly on the middle of the mouth and must bear on both lips at once, while covering more of the upper lip, upon which is exerted as well, and in greater part, the pressure necessary for the emission of sound, which operates in the following manner: After the inspiration of a sufficient quantity of air, the mouthpiece thus resting perpendicularly upon the barely half-open mouth, the tip of the tongue placed in between the lips, which it closes off completely from within the oral cavity, if one withdraws the tongue sharply behind the dental arch, a clearly articulated sound is produced immediately by the sudden effort of the air [which is] compressed in the mouth, against the air column contained in the instrument, which column begins vibrating from this shock; therefrom results the sound.

All the sounds which leave the Trumpet must be produced in this way, by the action of the tonguing acting as a valve, and working together with the expired air: this action has a perfect analogy with that of rejecting from the mouth some particle resting on the tip of the tongue.

When one wants to emit several sounds in a row, one does it by alternately pressing the tongue against the lips, and withdrawing it. To modulate the sound, one gradually increases or diminishes the pressure of the mouthpiece and the tightening of the lips, according to whether one wants to form a high or a low sound. It is therefore the proportional pressure of the mouthpiece on the lips which controls the pitch intervals on the Trumpet.

Formation of the sound.

One is to begin the studies of the Trumpet on the pitch of D in preference to any other, because it is the middle pitch of the instrument, from which the student can cover the normal range of the Trumpet almost from the outset.

One is to take care to save the breath so as to support each note as long as possible.

It is essential that the student get used to judging for himself whether the note he makes is in tune or not, so that he may adjust it with the aid of the lips and of the ear.

In order that the purity of the sounds not be altered, it is indispensable to empty from time to time the water which could collect in the *key* or *crook*, and even in the instrument, as the breath goes through it. Whatever process one employs, one can hardly conveniently attend to this with care but during a period of several bars rest.

To this effect, here is the means which we have imagined. One need only use a small, fine sponge, cut in an oblong shape and with dimensions such that it can fit freely into the pipe of the instrument after one has removed the mouthpiece. As soon as the sponge is introduced into the pipe, one blows with vigor into the opening in which it was inserted, putting the hand in front of the bell to receive the sponge which traverses instantaneously

the entire length of the tube, and brings with it up to the very last drop of water.

Advice to Students.

The student, at the start of his studies, must never extend his practice until fatigued, but return to it diligently, working in turn low sounds and high sounds, pieces of different tempos and characters, on all *keys* or *crooks*. Nevertheless, those who, by a peculiarity of their organization [training], experience a greater difficulty in one style than in another, are to work more at the style which offers them that difficulty, far from following the natural inclination which always returns us to the path of easy success, and apply [themselves] to perfecting all styles equally. As the means of the student develop, exercises are to be longer, more sustained. I add that it is very important to his future, that from then on he take the habit of performing his pieces at one go, without any lead-up or interruption. If he appears in public, he is to keep clear of both that childish shyness which paralyzes all our means, and that presumptuous audacity that makes us undertake beyond our forces.

In the interest of his health as of his performance, he is to avoid playing immediately after meals.

Of Taste, of Style, and of Expression.

Taste, wherefrom depends the aptitude of properly judging objects of art, is nothing more than the sense of Beauty, which better and more quickly than reason discerns the appropriateness of attributes by the sole measure of the pleasure it brings us. In fact, everyone has taste, more or less, for things that originate from his structure [training]: that which gives the rationale for the preference granted to such and such a genre, and to originality. But to compare all things to a standard Type of Perfection borrowed from an overall plan of nature, and from the point of view of the sentiment which fulfills [the Type] in infinitely varied forms, and always pleasing, one designates the Beauty as ideal, such is a distinctive feature of the man of taste. Consequently, amid the diversity of tastes, people of taste understand one other, and from their agreement in the fine arts results absolute taste, which is the touchstone of works of genius and whose universal and perpetual tradition is nonetheless submitted to fashion, capricious and exacting.

The natural source of good taste is then in naturally elite individuals. One can shape it, extend it, refine it; in a word, perfect it, through education; but nothing can substitute for natural good taste, for the fine and delicate sense which gives the exact measure of Truth and Beauty. The beauties of music, regardless of the emotions which they arouse in a sensitive soul, require, in order to have a clear and precise discernment of them, an exquisite taste to which belongs the choice of ornaments of perfect suitability to the subject and to the principal motif, the elegant variety of the outline, the purity and all the graces of style.

Through the study of style, the performer grasps the beauties of the composition,

pleasantly gets the listener interested in them; but, to attain to the interpretation of musical art's masterpieces, one needs as much as possible to become imbued with the nature of the sensations, the ideas, the feelings, the passions which inspired so many compositions.

Taste, answering to the call of genius, affixes the seal of perfection to these grandiose creations. It is therefore upon the foundations of universal harmony that the rules of taste must be laid. It is through the study and the comparison of the great masters and the imitation of virtuosos in all styles, that the student will form his own [taste].

Finally, since the current success of a lyrical work ordinarily depends on the taste of the day, because the public judges all things from its point of view, the performer, unless he wins over the audience, will need, mindful of his good name, to model his taste on the places, times, and fashion. But above all eager for the approbation of people of taste, the most brilliant successes will never let him forget that, if taste is refined in the sublime contemplation of the Ideal and True Beauty, it [taste] is blunted, worn down, or spoiled by the pursuit of vain difficulties, the abuse of contrasts, the bad examples and all the caprices of fashion.

Style, says J.-J. Rousseau, in his Dictionary of music, "is a distinctive character of composition or performance. This character varies according to the country, the taste of the people, the genius of the authors, according to the matters, the places, the times, the subjects, the expressions, etc." Consequently, one has Italian style, German style, French style; each music has its style, according to whether it is intended for the church, the theater or the salon, etc. There is the distinctive style of the author and that of the performer, which must generally enter, one and the other, into the principal character of the instrument which determines the use of the latter [style].

It is in fact to its abrupt, incisive and even strident character, sometimes sublime and triumphant, that the Trumpet owes it to electrify, so to speak, men and horses on a battlefield, to bear prodigies of merit, and to figure in the first rank in the triumphs and solemn manifestations of Divinity.

Flexibility of talent which lends itself to all styles appears, for the concert-performer, more desirable than originality. May the style be always fitting, correct and pure, that is to say, shaped by judgement and subjected to good taste. There should be no other originality but that which is natural; any exaggeration of style only results in bad taste.

To perform with *expression*, it does not suffice to master the mechanism of the instrument, to have facility, taste and understanding of style, without which in truth expression would lack soundness; but again it is necessary to be gifted with that faculty whose principle is a lively and profound sensitivity which develops under the inspiration of musical thought; faculty of expression which makes all of the artist's means converge, in the performance of a piece, of a phrase, of a note, towards translating the thought which dictated it, or which it bears, in all its truth as in all its strength, in its quickest runs as well as in its most delicate nuances. *Expression* is in a way the relief [outline] of the soul and of the mind; it is the sympathetic effusiveness that makes hearts beat in unison, the charm

which joins all spirits in the same communicative thought. It is the eloquence of music! Without energetic and true expression, no performance is perfect; and since one can only pass on to the audience emotions which one already experiences himself, it is necessary that the artist, endowed with an exquisite sensitivity and with a noble emulation of suspending all souls to his own inspiration, religiously preserve that sacred fire which lights up in generous hearts, feed on all ideas great and beautiful, on all higher emotions, and revive himself under the active influence of genius.

But beware, young students, of all ridiculous affectation which, in tending to counterfeit inspiration, would give your performance factitious expression, about which the man of taste, the sensitive man, lastly the connoisseur, will never be mistaken!

[Translator's note: The English equivalents of the following Italian terms are more accurately translations of Dauverné's French words than translations of the Italian words themselves]

ALPHABETICAL TABLE.

OF ITALIAN TERMS MOST USED IN MUSIC

INDICATING TEMPO, ITS VARIOUS MODIFICATIONS AND EXPRESSION.

| | |
|--------------------|------------------------|
| Abbandono (con) | With abandon |
| Accelerando | Gradually speeding up |
| Adagio | Calmly, slow |
| Affettuoso | Affectionate |
| Agitato | Agitated |
| Allegrezza (con) | With cheerfulness |
| Allegramente (con) | With joy |
| Allegro | Gay, lively |
| Allegretto | Slower than Allegro |
| Amabile | Graceful, lovable |
| Andante | Moderate tempo |
| Andantino | Less slow than Andante |
| Anima (con) | With spirit |
| Animato (più) | More animated |
| Appassionato | Impassioned |
| Attacca subito | Attack suddenly |

| | |
|--------------------------|----------------------------------|
| Ad libitum | At will |
| Al segno | To the sign |
| Amoroso | Tenderly |
| Ben | Well |
| Ben tenuto | Well held |
| Bis | Twice |
| Brio (con) | With brilliance |
| Calore | With warmth |
| Colla parte | Follow the part |
| Calando | Dragging [out] |
| Cantabile | To sing with spirit |
| Comodo | Convenient |
| Coda | Ending of a phrase or of a piece |
| Crescendo | Increasing in power |
| Da capo (D.C.) | To the beginning |
| Decrescendo | Decreasing the power |
| Diminuendo | Diminishing |
| Dolce | Soft |
| Delicatezza (con) | With delicacy |
| Eleganza (con) | With elegance |
| Energico | Energetic |
| Energicamento | Energetically |
| Energia (con) | With energy |
| Espressivo | Expressive |
| Estinto | Fading the sound |
| Espressione (con) | With expression |
| Fine | End |
| Forza (con) | With force |
| Forte (<i>f</i>) | Loud |
| Fortissimo (<i>ff</i>) | Very loud |
| Fuoco (con) | With fire |
| Flebile | Plaintive |
| Grave | Slowly and with gravity |
| Grazioso | Gracefully |
| Grazia (con) | With grace |

| | |
|--------------------------|-------------------------------|
| Impetuoso | Impetuous |
| Largo | The slowest of tempos |
| Larghetto | Less slow than Largo |
| Lamentabile | Lamenting and melancholic |
| Largamente | Broadly |
| Legato | Connected [tied, slurred] |
| Leggerio | Light |
| Leggieramente | Lightly |
| Lento | Slowly |
| Loco | At the place |
| Maestoso | Majestic |
| Maggiore | Major |
| Marcia | March |
| Marcato (ben) | Well marked |
| Marziale | Martial, warlike manner |
| Meno | Less |
| Mezza voce | At half-voice |
| Mezzo forte | Half-loud |
| Minore | Minor |
| Mesto | Sad |
| Morendo | Dying [out] |
| Moto (con) | With motion |
| Moderato | Moderate tempo |
| Mosso | Moved, animated |
| Molto | Much, very |
| Non troppo | Not too [much] |
| Pesante | Heavily |
| Piacere (à) | At pleasure, at will |
| Piano (<i>p</i>) | Soft, faint |
| Pianissimo (<i>pp</i>) | Very soft |
| Poco à poco | Little by little |
| Pomposo | Pompous |
| Perdandosi | Losing the sound [dying away] |
| Presto | Fast |
| Prestissimo | The fastest possible |
| Più mosso | More animated |

| | |
|------------------|--------------------------------------|
| Ralentando | Slowing down |
| Risoluto | Resolutely |
| Rinforzando | Reinforcing the sound |
| Ritardando | Holding up |
| Ritenuto | Holding back the value a little |
| Segue | Follow |
| Sempre | Always |
| Sentimento (con) | With feeling |
| Sforzando | Suddenly forcing the sound |
| Sostenuto | Sustained |
| Soto voce | Under the voice, in a very low voice |
| Stretto | Speeding up |
| Scherzo | Jesting piece of music |
| Scherzando | Jesting, bantering |
| Staccato | Detached |
| Strepitoso | Noisy |
| Stringendo | Closing up the tempo |
| Smorzando | Fading away |
| Tacet | Do not play |
| Tempo (à, in) | In time, tempo |
| Tempo di marcia | March tempo |
| Tempo giusto | Exact tempo |
| Tempo 1o | First tempo |
| Vivo | Lively |
| Vivace | Very lively, animated |
| Volti subito | Turn [page] right away |

DESIGNATION

of the Trumpet's keys or crooks, in French [English]and in German.

| | | |
|-------------------------------|-----------------------|----------------------------------|
| Ut [C]..... | C. | Sol [G]..... G. |
| Ré ^b [D-flat]..... | D.Es. ^[84] | La ^b [A-flat].....As. |
| Ré [D]..... | D. | La [A]..... A. |
| Mi ^b [E-flat]..... | Es. or Dis. | Si ^b [B-flat]..... B. |
| Mi [E]..... | E. | Si [B]..... H. |
| Fa [F]..... | F. | |

[Following many pages of exercises:]

Notes of equal values

The student who has not yet acquired enough endurance and power in his lips required to play the following exercises, which include the complete range of the instrument, should, in order to be successful, abstain from making efforts that will be more harmful than useful. He should therefore skip over the bars that are enclosed by the following:



Long tones

In long tones the note must be attacked gently, and the tongue plays only a small part in introducing the air into the instrument. However, the player must slowly increase the sound to his most forceful level and then make a diminuendo, without feeling any shock or unevenness, as is noted in the nuance placed on the first note.



Exercises on intervals

Attacking sounds throughout the full range of the instrument.



Exercises on the slur

What is called slur, or in Italian Portamento, means to flow from one note to the next. To slur a note to an ascending note, one must gently increase the breath and the pressure of the lips. To tie a note to a descending note, one must in contrast, decrease the breath and release the lips. In both cases, the tongue plays no part in the slurring of the note.

Mouv. très lent.



On the manner of articulating various accents

There are three types of accents: the slur (coule), the staccato (pointe) and the detached (detache). All three are the result of a particular type of tonguing. To obtain the slurring sound, the tongue must remain immobile after attacking the first note. The breath and the pressure on the lips drives the sound. The flowing sound [slur] is indicated by a semi-circular phrase mark that encompasses the number of notes that are to be slurred together. Example:



The staccato attack is indicated by a dot placed above or below one or several notes which indicates that they must all be tongued [frappees] but without dryness. Example:



Often the dots are tied together, which indicates that the attack of the tongue must be gentle enough so the sound of every note is sustained and unified with the following note: Example:



Finally, the detached notes consist of a dry and firm tongue attack. The tongue must retreat as soon as the sound has been played, in order to separate it from the one which follows. The detached note is marked by an elongated dot, placed under or over the note, which removes almost half of its value. Example:



The small note or appoggiature

The appoggiature, or little note, is an ornament that is written like this:



and sits one degree higher or lower than the principal note from which it takes half its value. Placed above, it can be a tone or a semi-tone above the main note. But because of its own limited structure, the natural trumpet is capable of producing only a few appoggiatures. This is because the pitches are not near enough through most of the trumpet's range. Example:



When the small note which precedes the main note is marked in this manner one must play it as short as possible. Example:



One sometimes employs the small note to indicate the portamento or slur. Example:



The double appoggiature [sic]

There is another type of appoggiature (or double little note) which is placed above or below the principal note and is two tones away from it. The value of these little notes is sometimes equal and sometimes unequal.

Example:

1st type of double appoggiature



2nd type of double appoggiature



Playing these ornaments consists of slurring lightly on the two little notes and without pressure or forcing the sound until the principal note.

Note: Appoggiature, in Italian **Appoggiatura**, comes from the verb Appoggiare, to lean. It is then necessary to lean on this note and to accent it.

The double tongue

Double tonguing, vulgarly called “trumpet tonguing”, is done by simultaneously repeating several syllables which give certain passages the trait that is characteristic of the instrument. The polysyllabic succession used to get these results is divided into three distinct articulations with which one works out all the double tongue attacks.

Examples:

1st articulation
TU TU GU DU
SIMILE

2nd articulation
TU TU GU DU
SIMILE

3rd articulation
TU TU GI DU TU GU DU
SIMILE

Extended double tongue or tremolo

indicated: etc.

abbreviation: etc.

etc.

The double tongue is one of the most difficult skills to acquire, and to do it with precision and clarity requires slow study from the beginning. Then, little by little, one accelerates the movement until one can control it at an elegant speed. To do this, it is not necessary to constantly have the instrument on one's mouth. One can achieve results exercising the double tongue by pronouncing only into the mouthpiece. In the exercises that follow the polysyllables are enunciated as in the preceding example.

Generally, the double tongue is only used during rapid passages which call for brilliance and sparkle, and the composers that so urgently demand these results should indicate this at first sight, that is to say by triplets,

Preliminary exercises on the double tongue



Exercises on the B^b considered almost as a factious note

The B^b is found in the range of each tonality or crook and is by its nature a little flat. Still the timbre is just as beautiful and resonant as it is for the other notes. It demands on the part of the player particular attention when it is presented as a sustained tone. The player must modify with the pressure of the lips the imperfection of this note; or better yet completely rectify it by pushing in the tuning slide of the instrument, the only way to play this note perfectly in tune.



Exercises on the F natural considered as a factious note

The F natural which is found in the range of most tonalities (or keys) or crooks, is an extremely difficult note to play with precision, because viewed as F natural, it is too high, and as F[#] it is too low. It is therefore only by study, observation and thorough control of the lips that one can succeed in playing it satisfactorily. Nevertheless, the composers ought to always avoid employing this as tonic and especially as a soft sustained note, because the results will not be agreeable.

Thirty exercises for familiarizing oneself with the super-high notes of the trumpet

Note: These exercises can only be played on low or medium pitched crooks. (1st and 2nd series)

These notes are rarely used due to the great difficulty in reproducing them

accurately. They cannot be sounded without tremendous muscular force of the lips which requires a particular structure not all trumpeters possess. Despite this, one should not be indifferent to making the effort and to obtain the best results possible because in general, the ability to do the easy things with precision often comes when, after much study, the difficult things have been accomplished.



Third Part

Chromatic trumpets considered with respect to their mode of execution and their usefulness

In nature, each thing has both its good and bad side. If, on the one hand, the natural trumpet is good in respect to the purity, and clarity of its sound, on the other hand, the gaps in its range are only partially compensated for by the changing of crooks. Of all the inventions which have, to the present, had the goal of increasing the richness of tonality of the trumpet while conserving its original character, without question the most successful is the slide trumpet which is English in origin. Also, without underestimating the special qualities of the piston or cylinder trumpet, the preponderate advantages that we find with the slide trumpet have motivated us to adopt it to complete the study of the trumpet; the results that have been achieved are crowned by the great success in the scholarly and public competitive examinations of the conservatory.

By making the slide twice as long as the English model, we sought, by this simple modification, to: make the form of the trumpet more compatible for use with our orchestras, to complete the series of all the tonalities or crooks used today. This improvement, it seems to me, should assure the supremacy of the slide trumpet over the cylinder or piston trumpet. The latter has only the advantage of being easier and faster in rapid passages, be they diatonic or chromatic; but the excessively rapid oscillation of the pistons produces a confusion of sounds. The breaking up of the continuity of the inner wall of the resonant tube weakens the sound and at the same time makes the piston trumpet lose that clear and silvery sound which is possessed by all natural and slide trumpets to various degrees. This is how these trumpets differ essentially from those

preceding them, which are more similar to the woodwind instruments to whom by imitation they derive their birth by the application of an ingenious mechanism, which places these instruments in a category apart. It is up to those with good taste and to composers to decide what role the trumpet (piston) should take. It is by analogous reasons that keyed trumpets only produce sounds which are, to a certain point, diffused and nasal sounding, which must make one prefer even the piston trumpet.

The slide trumpet as it presently exists is therefore naturally provided with all the keys and crooks without exception.

Additionally, by the simultaneous movement of the slide one can obtain the entire range by descending by degree or positions: the $1/2$ tone, the tone, and the tone and $1/2$, which permits one to fill in the gaps which exist in the range of the natural trumpet. Only a few notes, which in the speed of execution are achieved only with a certain amount of difficulty, are those that must be played at the end of the slide; such as the D and the F in the medium as well as the low A, F, and E.



As a general theme, if one plans to conserve the characteristics of the trumpet, one must avoid the abuse of a great number of diatonic and chromatic notes, considering that one loses on the side of originality as much as one gains with respect to tonality. And one should hardly ever use the chromatic trumpets except for the effects that one cannot get from an ordinary trumpet, unless a special solo is written under desirable circumstances for the chromatic instrument.

Taking into consideration these observations, composers will always be certain to obtain the best results from the perfected slide trumpet to which are attached incontestable advantages. But to conclude, I maintain this principle, that all instruments which have had any type of mechanical addition, even the most simple, such as the slide trumpet, that all chromatic instruments will never, in the end, equal the virginal sound of the natural trumpet.

Practical Theory of the Slide Trumpet

Observations: In general, apply the same principles to the slide trumpet as you do the natural trumpet concerning: the position of the body, the placement of the mouthpiece on the lips, the emission of sound, articulation, breathing, double tonguing, and the

manner of writing in common use for the instrument. The slide trumpet is held by the left hand which grasps the instrument near the middle. The right hand serves to maneuver the slide.

The slide trumpet has four positions that proceed by semi-tones. The distance from one semi-tone to another is about six centimeters. Thus the 1st position exists when the slide is completely in. All the notes in the system are absolutely the same as the natural trumpet in the same key.

The 2nd position is obtained by pulling the slide out about 6 cm.

The 3rd position is obtained when the slide is pulled out about 14 cm.

The 4th position is obtained when the slide is completely pulled out.

The general effect of the slide is, therefore, to lower voluntarily, by 1/2 tone, one tone, and one tone and 1/2, the tuning of the complete range of the instrument and to permit the player to borrow the harmonics of keys that do not exist on the natural trumpet.

In this manner the four positions produce the following tonalities (harmonics)

The image displays four staves of musical notation, each representing a different position of the slide trumpet. The notes are as follows:

- 1st position: C, D, E, F, G, A, B, C
- 2nd position: B, C, D, E, F, G, A, B
- 3rd position: B \flat , C, D, E, F, G, A \flat , B \flat
- 4th position: B \flat , C, D, E, F, G, A \flat , B \flat

By putting together in the same scale the notes obtained from these four fundamentals one forms the following chromatic scale.

Chromatic scale by sharps and flats

Explanation—the numbers placed under the notes determine the positions, except the high F, which takes half of the first position.

4 3 2 1 4 3 2 1 4 3 2 1 3 2 1 3 2 3 2 1 2 1 2 1 1 2 1

2 1 1 2 1 2 1 2 3 2 3 1 2 3 1 2 3 4 1 2 3 4 1 2 3 4

High notes, which one can produce on a low-pitched keys, should be excluded from the range because they are not certain enough to be consistently produced.

2 2 1 1 1 1 1 2 2

Synoptic Chart

of notes in the ordinary range of the slide trumpet, that can be obtained in different manners, have the advantage of being able to be modified and produced with better intonation, in rapport with the scales from which they are borrowed and diminishing the difficulty in the execution the different passages.

The dots connect the same notes and indicate the diverse positions from which they can be obtained.

1st position

2nd position

3rd position

4th position

On the Trill

The **Trill** is an ornament of which perfect execution on the Trumpet is of the greatest difficulty: that which has almost been rejected in our era, in the music written for this instrument. In fact, the essence of the Trumpet and especially the shape of the mouthpiece for producing sounds short and absolute, resists the perfection of this figure. The exception is the Valved Trumpet which renders them with ease, aided by its fingering; it is only with a lot of work and perseverance that one obtains the few singular trills that the natural Trumpet and the Slide Trumpet allow.

The Trill consists in the alternating pulsation of two notes, one placed a step or a half-step above the other, according to the species.

There are two species of Trill, the major and the minor. The interval is a tone for the major trill and a semi-tone for the minor. Both are notated with the sign: (♯). The minor is only practical on the Valved Trumpet.

In order to make a Trill on the Trumpet, one addresses the first note softly with a **Du** tonguing, then sustaining the emission of the sound with force, one will produce a sort of undulation by an increased pulsation of the tongue against the edge of the lips, which it only skims, facilitated by this vibrating motion, the passage from the upper note to the lower and reciprocally in the inverse sense. It is well understood that this motion of going and coming, the tongue must not make any jolting contact in order to preserve the connection and equal value of the notes slurred together to produce the Trill. Because it is important to render it [the trill] with great clarity, it is necessary, before taking it to a normal degree of speed, to study it at a slow tempo and to progressively accelerate the pulsation.

Notation of the Trill.



Of the preparation and the termination of Trills that one can execute on the Slide Trumpet.

The Shortened Trill or Mordent.

One names thus a species of very short Trill for which the sign is placed above the note to be trilled. This Trill is done without preparation: not only is it attacked suddenly, but it is almost immediately interrupted.

One writes it thus $\approx \approx \approx \approx$, which indicates one, two, three and four pulsations.

Example with one pulsation.

written: 

played: 

Example with two pulsations.



Example with three pulsations.



Example with four pulsations.



There is yet another way of reproducing the effect of this Trill or Mordent, in an easier manner by the use of the double-tongue.



On the Grupetto.

The **Grupetto** (small group) is a grouping of small notes that is used to ornament a primary note. There are two species. The first is composed of three notes whose value is taken as much from the affected note as from the time that precedes this note. The three small notes that compose it are placed above or below the real note; in both cases, it is always addressed diatonically and forms a minor or diminished third.

Example:



In order to execute this figure perfectly, it is necessary to stress the first note more and hold it longer than the other two.



The **Grupetto** of the second species is composed of four notes placed after the real note, and instead of being articulated before the note that it affects (like the preceding), it is only articulated after.

Example:



One often represents the Grupetto by this sign ∞ which one sometimes precedes with a # or a \sharp which is only applicable to the third note of the Grupetto.

Example:



PRACTICAL THEORY of the Trumpet with Piston or Cylindrical Valves.

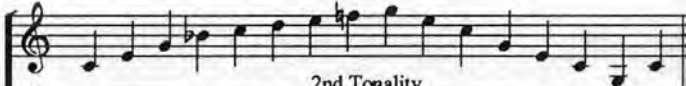
Observations. ____ To the Valved Trumpet, in general apply the same rules as for the natural Trumpet concerning: **The position of the body, The placement of the mouthpiece on the lips, The emission of sound, Articulation, Breathing, Double-tonguing, etc:**

One can compare the mechanism of the Valved Trumpet to those wind instruments that form their sounds by the combination of holes and keys, since the valves are disposed in a way such that to make them work, one modifies at will, one gauges, so to speak, almost the whole range and the quality of sound: by this truly ingenious mechanism, the Trumpet is enriched with a large quantity of notes that were impossible to produce before; because restricted to the employment of resonating body, the Trumpet has only natural tones: **the Pedal-Tonic, the Fifth placed a Fourth lower than the tonic, the Tonic, the Mediant, the Dominant, the minor Seventh, the Octave, the 9th or Second, the 10th or third, the 11th or Fourth, and the 12th or upper Fifth.**

The general effect of the Valves is to lower, at will, by a **semi-tone, a tone, a tone and a half, two tones, two and a half tones, and two tones and two semi-tones**, the scale of the entire range of the **Key or Crook** placed on the instrument.

Their particular effect is to permit the performer to borrow the tonic and the harmonics of keys that did not exist on the instrument before this invention.

TABLE
representing the range of tonalities obtained by playing on the Valves.

| | |
|---|---|
| | 1st Tonality |
| Natural sounds with- out the aid of Valves |  |
| With the 2nd Valve | 2nd Tonality |
| With the 1st Valve | 3rd Tonality |
| With the 3rd or 1st and 2nd Valves | 4th Tonality |
| With the 2nd and 3rd Valves | 5th Tonality |
| With the 1st and 3rd Valves | 6th Tonality |
| With the three Valves together | 7th Tonality |

By combining into the same scale, the notes obtained by these seven tonalities, one forms the following chromatic scale.

Explanation. The zero (0) will represent what one calls the sounds [that are] open or natural to the instrument, those which one obtains without the aid of the Valves, and the numbers will determine the valves and the fingers of the right hand. Thus the first valve (the one closest to the mouthpiece) will be moved by the **Index finger**, the second by the **Middle finger** and the third by the **Annular [ring] finger**. The combined numbers indicate that the Valves must be pushed at the same time, always observing to push them down to the bottom of their courses, otherwise the sounds will not be emitted with purity.

Chromatic Scale by Sharps and by Flats.

0 1 2 1 2 0 2 1 2 0 1 2 0 1 2 0 2 1 2 0 1 2 0 2 1 2 0 2 0 2 0 1 2 0

2 1 0 2 0 1 2 0 2 1 1 2 3 0 2 1 0 2 1 1 2 0 2 1 1 2 3 0 2 1 1 2 3 1 1 2 3 0

High notes that one can produce in a low key, but which need to be excluded from the range, do not offer enough certainty to be able to obtain them.[:]

1 2 1 2 0 2 1 2 1

Low notes that one can obtain in a high key, but only in long values.[:]

2 1 1 2 1 2 1 2 1 2 1 2

SYNOPTIC TABLE

of notes in the ordinary range of the Trumpet with Piston or Cylindrical Valves, that one can obtain in several ways, taking advantage of the ability to modify and to produce with more accuracy the notes related to the scales from which they are borrowed and to diminish the difficulty in performance of different ideas and passages.

The points corresponding to synonymous notes are notated by the diverse fingerings and the use of the Valves [piston or cylindrical] to obtain them.

It is in the nature of the resonating body of brass instruments that the **minor 7th** (the B^b) is always a little flat, and that the **11th** (F[#]) is too high. The same inconvenience exists in all tonalities or **Crooks**. These defective notes will be indicated on the Synoptic Table

by an asterisk (*) in order to identify them and to be able to modify them by the fingering that favors them, notated in the chromatic scale.

0
2
1
3 or 1&2
2&3
1&3
1,2&3

The first system of musical notation consists of six staves. Each staff has a treble clef and a key signature of one flat. The notation includes vertical lines representing rhythmic patterns and fingerings. The patterns are: Staff 1: |||; Staff 2: |||; Staff 3: |||; Staff 4: |||; Staff 5: |||; Staff 6: |||. The fingerings are: Staff 1: 1, 2, 3; Staff 2: 1, 2, 3; Staff 3: 1, 2, 3; Staff 4: 1, 2, 3; Staff 5: 1, 2, 3; Staff 6: 1, 2, 3.

The second system of musical notation consists of six staves. Each staff has a treble clef and a key signature of one flat. The notation includes notes and fingerings. The notes are: Staff 1: G4, A4, B4, C5; Staff 2: G4, A4, B4, C5; Staff 3: G4, A4, B4, C5; Staff 4: G4, A4, B4, C5; Staff 5: G4, A4, B4, C5; Staff 6: G4, A4, B4, C5. The fingerings are: Staff 1: 1, 2, 3; Staff 2: 1, 2, 3; Staff 3: 1, 2, 3; Staff 4: 1, 2, 3; Staff 5: 1, 2, 3; Staff 6: 1, 2, 3.

The third system of musical notation consists of six staves. Each staff has a treble clef and a key signature of one flat. The notation includes notes and fingerings. The notes are: Staff 1: G4, A4, B4, C5; Staff 2: G4, A4, B4, C5; Staff 3: G4, A4, B4, C5; Staff 4: G4, A4, B4, C5; Staff 5: G4, A4, B4, C5; Staff 6: G4, A4, B4, C5. The fingerings are: Staff 1: 1, 2, 3; Staff 2: 1, 2, 3; Staff 3: 1, 2, 3; Staff 4: 1, 2, 3; Staff 5: 1, 2, 3; Staff 6: 1, 2, 3.

The keys or Crooks of the Valved Trumpet that are most advantageous in terms of their timbres and their means of execution are: **F, E, E^b, D, D^b**, and **C**. In order to replace the keys of **high G, A^b, A, B^b, B**, and even **C**, one has recourse in the transposition indicated in the following Table, that of a Fourth or Fifth lower.

| | |
|--------------------------|--|
| False (Factitious) Keys. | |
| Transposed Keys. | |
| False Keys. | |
| Transposed Keys | |

Means of Tuning the Piston or Cylindrical Valves.

When the instrument is tuned to the desired key by means of the slide that belongs to it, it is indispensable to tune the Piston or Cylindrical Valves since the slides that affect them serve to modify the temperament of each Key or Crook, without which it is impossible to play accurately. Thus, in order to arrive at this result, one proceeds in the following manner: One plays first the Fourth below [the tonic] **G**, then one tunes its major third **B**, followed by its proper Fifth **D**, its minor 7th **F**, and finally its major 9th **A**. When these notes are in tune, it is necessary next to play the Fourth below [the tonic] **G**, then put it in perfect unison with the same note produced by the 1st and 3rd Valves, and then to employ the same means on the **G** an octave higher.

Major and Minor scales with sharps and flats In the most playable keys of the instrument

Despite the fact that the mechanism of the piston or cylinders makes it possible to play in all the major and minor keys, it is nevertheless necessary to exclude certain tones that are too difficult to obtain. This is because the simultaneous pressing down of the pistons or valves damages the purity of sound and results in a heavy and laborious execution, not to say impossible.

The instrument having, then, the asset of crooks for all the keys is preferable. Whenever possible, use the tones from the natural key.



Trills on the piston or cylinder trumpet

Since it is the interplay of the pistons or cylinders that produces different trills on the instrument, it is therefore necessary in order to play them cleanly and precisely, to avoid having stiffness in the forearm and wrist., the only way to achieve the suppleness necessary for this type of figure. In addition, one will have to take care to always keep the pistons or cylinders in a good state of repair.

The trill consists of the interplay of two notes, one placed one degree or 1/2 degree lower than the other, depending on its character. There are two types of trills, major and minor. .

Both are indicated by the sign: (*tr*)

Example:



The forms of preparation and endings most often used when executing the trill



Note: See the section of the natural trumpet, as well as the section on practical theory of the slide trumpet pages 31, 169, 170 and 171, for more about the appoggiature, the trill without preparation or mordent, and the gruppetto.

NOTES

1. *Book of Numbers*, Chapt.10, v.2.
2. *Ibid*, v.3 to 10.
3. *Exod*, Chapt. 19,v.13 16 and 19.
4. Tome II, Chapt. 4, p.212.
5. Chapt. 2, p.106, and note 12.
6. In Switzerland, in Tyrol, in Germany, one can still see among the peasants today Trumpets made from tree bark, and which have been there since remotest antiquity. Mr. de Barante, in his *Histoire des ducs de Bourgogne [History of the Dukes of Burgundy]*, mentions wooden Trumpets which the Swiss played at the Burgundian army, and whose frightening sound put that army to rout.
7. *Genesis*, Chapt. 13.
8. *Book of Numbers*, Chapt. 10, v. 1-8.
9. Josephus, *Antiq. judaiques*, Book III, Chapt. 14.
10. Such again are the Trumpets represented on the Arch of Titus in Rome.
11. *Book of Numbers*, Chapt. 10, v. 9-10.

12. *I Kings*, Chapt. 13, v. 3.
13. *II Kings*, Chapt. 2, 18, v. 28 and 16.
14. *I Paralipomenon*, Chapt. 15 and 16.
15. *III [sic] Kings*, Chapt. 1, v. 34 and 39.
16. Josephus, Book VIII, Chapt. 2 and 5.
17. *Histoire des Juifs [History of the Jews]*, Book VIII.
18. *Rabelais*, Book I, Chapt. 23.
19. *Paralipomenon*, Chapt. 13.
20. For the details on the Day of the Trumpets, see *Histoire universelle anglaise [Universal English History]*, T. IV, Book I, Chapt. 7, p. 135; and note LXII, p. 137, same volume (publ. Paris, 1779); and the work of Kalkbrenner on the history of music.
21. The scholars have given different etymologies for the word Jubilee which would come, according to some, from the root *Yobel*, which means ram's horn, or from *Jubal*, inventor of the Trumpet, or finally from the verb *Yabel* or *Yobel*, to restore: in effect the Jubilee, which was announced to the sound of Trumpets, restored their basic rights to everyone.
22. See *Leviticus*, Chapt. 25.
23. Villoteau, *De la Musique chez les Orientaux [On Music Among the Orientals]*.
24. *Histoire de la musique [History of Music]*, by Stafford, translated from the English by Mrs. Fétis, 1832.
25. *Voyages aux Indes orientales et a la Chine [Voyages to the East Indies and to China]*, T. I, Chapt. 9, p. 101.
26. *Histoire de la musique [History of Music]*, by Bonnet, p. 326.
27. Balthazar Solvyns, *Sur les Hindous [On the Hindus]*. Bibliothèque impériale [Imperial Library].
28. *Ambassade de la Compagnie orientale des Provinces-Unies vers l'empereur de la Chine, Nicechoff [Embassy of the Oriental Company of the United Provinces Toward the Emperor of China, Nicechoff]*. Leyde, 1665.
29. G. Kastner, *Manuel général de musique militaire à l'usage des armées françaises [General Manual of Military Music for Use in the French Armies]*. Paris, 1848.

30. *Histoire de la musique* [*History of Music*], by Stafford, translated from the English by Mrs. Fétis. Paris, 1832, Chapt. 6, p. 60.
31. *Voyage de Chardin* [*Chardin's Voyage*], T. IX.
32. *Histoire de la musique* [*History of Music*], by Stafford, Chapt. 6, p. 66.
33. *Ibid*, by Stafford, Chapt. 9, p.104.
34. Laborde, *Essai sur la musique* [*Essay on Music*], T.I, p.219.
35. *Histoire de la musique* [*History of Music*], by Stafford, Chapt. 10, p. 108.
36. *Ibid*, p. 115.
37. *Nouveau système de mythologie* [*New System of Mythology*], by Father Giradet, Chapt. 1, p.16, 17.
38. M.P. Lahalle, *Essai sur la musique* [*Essay on Music*].
39. Laborde, *Ibid*, T. I, p. 279.
40. Theognis of Megara lived around 544 BC.
41. Frontin, Chapt. 9.
42. Xenophon, *Anab*, Book II.
43. Xenophon, *Hell*, Book IV.
44. Noël, *Dictionnaire de la Fable* [*Dictionary of the Fable*] (Temple of Minerva-Trumpet in Corinth, built by [H]egeleos, son of Tyrsenus).
45. Athenaeus, Book X.
46. *Histoire de la musique* [*History of Music*], by Stafford, Chapt. 12, p. 132.
- [46a. Editor's note: In Virgil, Misenus is also referred to as Aeolides, descendant of Aeolus; hence it is one person. See *Aeneid*, Book VI, lines 162-64. for this entire reference.]
47. Properce, Lib. IV, chap. 1 (Regne de Romulus)
48. *Histoire de la musique*, [*History of Music*] by Stafford, Chapt.13, p.167.
49. General manual of Military Music as used in the French armies. Paris 1848.

50. Vegece lived around the year 390 during the time of the Emperor Valentinian 11 and Polybius around 204 BC.
51. Aenatores [from the Latin *aenus*, meaning brass], who sounded the brass, because the their instruments were usually made of brass.
52. They put Vegece among the rank of officers or leading soldiers of the legion.
53. G. Kastner, *Manuel général de la musique militaire*.
54. Lambert, *Hist. gén. [General Hist[ory]]*.
55. *Histoire de la musique [History of Music]*, by Stafford, Chapt. 19, p. 281.
56. G. Kastner, *Manuel général de la musique militaire [General Manual of Military Music]*, according to J.E. Altenburg, *Essai d'une instruction pour l'art héroïque et musical des Trompettistes [Essay on an Introduction to the Heroic and Musical Trumpeter's Art]* (Halle, 1795).
57. J.E. Altenburg.
58. G. Kastner, according to Altenburg.
59. Idem.
60. Idem.
61. According to Lahalle (*Essai sur la musique*) [*Essay on Music*], this kind of band would owe its invention to P.J.A. Maresch, born in Bohemia, in 1719, deceased in 1794, and perfected in 1751 by Naryschkin, master of the Royal hounds for the Emperor of Russia.
62. G. Kastner, *Manuel général de la musique militaire*.
63. See the Description of Russian Trumpets, inserted in *Musée des familles* [Museum of Families], by M[r]. Castil-Blaze (November 1833).
64. Michaud, *Histoire des croisades [History of the Crusades]*, 1st part, vol. I, p. 197, 208, 284 and 455.
65. *Chronique de Saint-Denis [Chronicle of Saint Denis]*.
66. Small banderoles emblazoned with coats of arms.
67. Christine de Pisan, *Livre des faits du sage roi Charles [Book of Deeds of Wise King Charles]* (Charles V), 3rd part, Chapt. 36.
68. Those of ivory were called *Oliphant* or *Olifan*.

69. *Chroniques de Foissart* [*Chronicles of Foissart*] Book III, Chapt. 13.
70. Noel, *Dictionnaire des origines, invent. et découv.* [*Dictionary of Origins, Invent[ions] and Discov[eries]*], Tome II, p. 781 and 782.
71. Brantome, *Les hommes illustres: Vie de César Borgia* [*Illustrious Men: Life of Cesar Borgia*].
72. G. Kastner, *Manuel général de la musique militaire*.
73. According to the record of 1708, this band comprised altogether twelve Trumpeters, called *Trompettes de la chambre*; the *Cromornes de la chambre* [Krumhorn (players) of the Chamber], Sackbuts and Cornetts, eight Fife and Drum players, the *Douze Grands Hautbois* [Twelve Great Oboe (players)], and Violins of the *Grande Ecurie*, formerly called *grands Hautbois*, Cornetts and Sackbuts; six *Hautbois et Musettes du Poitou* [straight capped Shawms and French Bagpipes], six Krumhorns and Trumpets marine. One of the duties among the responsibilities of the *grand écuyer de France* [Master Equerry of France] was to treat the king's entrances and other solemnities with Trumpets, Oboes, Violins, Drums, Sackbuts, Cornetts, to make the feast more celebrated.
74. M[r]. de Guignard, *Ecole de Mars* [*School of Mars*], Tome I, p. 722. Paris, 1725.
75. Fétis, *Curiosités historiques de la musique* [*Historical Curiosities of Music*]. Paris, 1830.
76. Castil-Blaze, *Appendice de l'Académie royale de musique de 1645 à 1855* [*Appendix of the Royal Academy of Music from 1645 to 1855*].
77. *Calendrier historique et chronologique des théâtres* [*Historical and Chronological Calendar of Theaters*], 1751.
78. See at the end of the Historical Summary, pages 83 and 85 to 97.
79. See these scores at the Library of the Paris Conservatory of Music (German edition).
80. J.E. Altenburg (Halle, 1795), etc. M. Mösl (Augsburg). See at the end of the Historical Summary, Pages 109 to 128.
81. See p. [X] XV, Pl. III, fig. 6.
- [82. Translator's Note: This corresponds to the date that Spontini sent valved instruments to the Conservatory from Berlin; subsequent instrumentation included both natural and valved trumpets. It seems logical that the combination of natural trumpet timbre and valved trumpet flexibility made the circular trumpet with hand-stopping unnecessary.]
83. One will see, on [Dauverné's] page 12, how the Germans designate keys or crooks.
- [84. Editor's note: should read "Des".]