

## New Light on the Use of the Metronome in Organ Music by Lefébure-Wely, Lemmens, and Franck

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Over two hundred years now separate us from the dawn of the nineteenth century – an enormous span of time, and all the more so if we consider the rapid pace of change those centuries witnessed. At this remove, we can no longer rely upon musical intuition alone to interpret the meaning of nineteenth-century music in a sensible and convincing manner. As a result, today more than ever, we have a duty to search out those elements that can be of the greatest help in establishing musical meaning – by which I mean those musical directions that may be documented in words or notation. These directions fall into two categories: purely quantitative indications, which stipulate parameters such as pitch and tempo; and qualitative directions, which describe the character of a composition and the manner in which it should be performed.

To better evaluate and perform nineteenth-century organ music, we must try to determine how much the second kind of musical direction influenced and continues to influence the first. That is one of the goals of this article. We should also keep two key points about organ music in mind. First, organ music is simply music, neither more nor less than any other kind of music. It should not, cannot, and does not need to be divorced from other music of the period. The basic components of musical performance, therefore, apply to organ music just as much as to any other music. Secondly, much organ music is utilitarian by design, or has become so through its incorporation into the most important functions of the Church, where the organ has traditionally resided.

Before we can talk about qualitative musical directions, we need to solidify our understanding of the more objective, quantitative kind, and that is where this article begins. Details about a piece of music that we might consider “objective” include the musical notes themselves, but also all the

indications that supplement the composition and direct, or even dictate, the performance. In the repertoire of the nineteenth century, the parameters of notation and text criticism do not raise many fundamental questions, at least if we accept the original editions as definitive and unambiguous sources. I will not address the possibility of more flexible interpretations here, but will simply point out that the original text of the score at least represents a possible version of the piece, one presented by the composer. The question of whether we can or ought to develop a more nuanced picture deserves careful study, but I will not investigate it here. Text criticism, incidentally, was a preoccupation of twentieth-century musicology, one that we can trace to the philological origins of the field. Today, other topics, such as instrumentation and tempo, more often command our attention. This article deals with tempo, whenever we can determine it – and when we cannot, about whatever information we do possess about how tempos can be described. The discussion that follows draws upon established facts about three central figures: Louis Lefébure-Wely, and Jacques-Nicolas Lemmens, and finally César Franck.

## Italian Tempo Marks

### *Introduction*

The term “tempo” operates on two levels. It can literally mean the “time”: the speed or the duration of a basic note value, or more precisely, the number of accents within a given time span. This basic tempo can convey an impression of “slow motion” or “fast motion.” The word “tempo” also encompasses the various ways of altering a basic tempo to add expression in accordance with the content of the music. This flexibility can take different forms: the adjustment of the principal tempo during large sections of a piece (*un poco più* and *meno mosso*); the fluctuation of the principal beat with respect to a phrase or part of a phrase (*accelerando* or *ritardando*); and the displacement of certain notes in relationship to the beat (*rubato* in its proper sense).

### *Italian Tempo and Expression Marks*

The eighteenth-century tradition of mostly indicating tempo by a word or phrase in Italian continued into the nineteenth century. Certainly composers and publishers sometimes used other languages, but I shall confine the

discussion here to the common Italian indications. These terms were understood in the nineteenth century in largely the same way as they are today: we order them in a specific hierarchy that provides the performer with fairly clear guidelines as to tempo, and most sources agree that this was the case in the nineteenth century as well. Some nineteenth-century composers confined themselves to indicating tempo with Italian terms and nothing more, while others added a metronome mark. Metronome marks by themselves almost never occur.

The correct application of these metronome marks will be discussed below. I would like to begin, however, with a source that provides something of an overview over the entire nineteenth century: the 1892 *Dictionnaire musical des locutions étrangères* by Paul Rougnon. This lexicon is of particular interest for our discussion since it includes a special section on the metronome and its use.

Rougnon describes the origin of the Italian tempo directions and the reason for their existence as follows:

Earlier, composers indicated the different tempi of musical works using the names of the most common dances: the allemande, the gigue, the sarabande, the pavane, etc. Being known by most, the tempi of these dances could be applied to any works chosen, even if they had no other resemblance to the dances. Over time, as musical composition developed more and more, this means of indicating tempo no longer sufficed. That is how the special Italian words, which precisely express the thoughts of the composer, came into use, and from Italy they spread to the other nations through practice and tradition.

These Italian words make up a true universal language, whose great advantage is that it allows many people of different nationalities to understand and perform the same piece of music with the same tempo and the same nuances... I should, however, also mention the practice adopted by some composers in France and Germany of writing the indications of the tempo and the nuances in the language of their country.<sup>1</sup>

1 “Primitivement, pour indiquer les différents mouvements de leurs œuvres, les compositeurs se servent du nom des danses les plus usitées, telles que l’allemande, la gigue, la sarabande, la pavane, etc., etc. Les mouvements de ces danses, étant connus de tous, étaient appliqués à telles ou telles œuvres, bien que ces œuvres n’eussent

As a rule, we divide tempi into three main categories: slow, moderate, and fast. To this general scheme, Rougnon adds the following subcategories as seen in table 1:<sup>2</sup>

**Table 1: Rougnon’s tempo categorisations**

Slow	Moderate	Fast
Larghissimo	Andantino	Allegro
Grave	Allegretto	Allegro molto
Largo	Allegro moderato	Allegro assai
Lento molto	Allegro non troppo	Presto
Lento		Vivace
Larghetto		Vivo
Adagio		Allegrissimo
Andante		Prestissimo
		Vivacissimo

Curiously, Rougnon does not include *moderato* on this list. We might also note that both *allegro moderato* and *allegro non troppo* are listed as moderate tempi. I discuss below how these terms might be translated to the metronome.

Mathis Lussy, in his 1890 publication *Musical Expression*, presents the three main categories with fewer subdivisions as seen in table 2:<sup>3</sup>

aucune analogie avec ces danses. La composition musicale prenant progressivement un développement des plus étendus, ce moyen d’indication de mouvement devint insuffisant. C’est alors que des mots italiens spéciaux, exprimant nettement la pensée du compositeur, furent employés et d’Italie se répandirent, par l’usage et la tradition, dans les autres nations. Ces mots italiens constituent une véritable langue universelle dont le grand avantage consiste à permettre à plusieurs personnes de nationalités différentes de comprendre et d’interpréter le même morceau de musique avec le même mouvement et les mêmes nuances, tout en n’ayant qu’une seule forme de langage comme moyen d’indication. Je signalerai cependant l’usage adopté en France et en Allemagne par quelques compositeurs, lesquels écrivent les indications de mouvement et de nuances dans leur langue nationale.” Paul Rougnon, *Dictionnaire Musical des locutions étrangères* (Paris: Paul Dupont, 1892), viii. The French “mouvement” can mean either musical tempo, a single movement of a larger musical work, or movement in a general sense. The translation depends upon the context. See also below for a definition of “mouvement” by Castil-Blaze.

<sup>2</sup> Paul Rougnon, *Dictionnaire Musical*, 216.

<sup>3</sup> Mathis Lussy, *Musical Expression: Accents, Nuances, and Tempo in Vocal and Instrumental Music*, trans. M. E. von Glehn (New York: Novello and co., 1892), 161.

**Table 2: Lussy's tempo categorisations**

Slow	Moderate	Fast
Grave/Adagio/	Andante	Allegro
Largo	Andantino	Presto
Larghetto	Allegretto	Prestissimo

We note that like Rougnon, Lussy does not include *moderato*. Later, however, he addresses the subject again, this time providing a slightly different division, where *lento* and *moderato* appear as basic designations for slow and moderate tempi, respectively. Lussy also fails to mention *vivace*, but this may just be because he specifies fewer subcategories overall. In the same chapter, he also makes mention of the older method of indicating tempo by reference to dance forms:

#### CHAPTER IX.

##### ON THE NORMAL OR METRONOMIC TEMPO.

The so-called normal tempo of a piece is the pace to which the performer must adhere throughout, as long as the general structure is not disturbed by exceptional influences. The three principal tempi are:

- 1.—Quick *tempo*, or *Presto*, *Allegro*.
- 2.—Moderate *tempo*, or *Moderato*, *Andante*.
- 3.—Slow *tempo*, *Grave* or *Lento*, *Adagio*.

Composers generally indicate the tempo by one of these Italian terms at the beginning of each piece; sometimes it is specified also by the name of the kind of composition, such as Rondo, Minuet, Polonaise, March, &c. These terms are evidently not sufficiently precise. It is impossible that they should suffice to give an exact indication of the tempo, unless they each denote a definite number of measures or sections of measures, to be played in a given time.

But this is not the case, for these terms have the most varied significations according to the different writers who make use of them.<sup>4</sup>

I would like to reiterate one important aspect of these tables and their nomenclature. The terms used refer exclusively to tempo, or the speed at which a piece is to be performed. But speed does not tell us everything: the general character of the piece remains unspecified. Sometimes that does not matter, since often the genre of a piece, or titles such as *Rêverie*, *Scherzo*, *Recueillement*, *Romance*, *Marche*, etc., help to define the character of the music and the appropriate way to perform it. We will look later at the extent to which this might influence the tempo itself.

To help us develop a clear, unbiased picture of the Italian tempo marks, I also need to return to the definition of the term *mouvement*, or “movement,” which is another way of saying “tempo.” In 1825, François Castil-Blaze defines *mouvement* as follows:

TEMPO ... The degree of quickness or slowness that lends the measure the character of the piece that is being played. There are five principal variants of tempo, which, ordered from slow to fast, are called *largo*, *adagio*, *andante*, *allegro*, and *presto*. Each of these degrees can be further subdivided and varied into others, and among these one must distinguish between those that only indicate the degree of velocity or slowness, such as *larghetto*, *andantino*, *moderato*, *allegretto*, and *prestissimo*, and those that also indicate the character and the expression of a piece, such as *agitato*, *brillante*, *appassionato*, *strepitoso*, *con fuoco*, *con brio*, etc. The former can be felt by all musicians; but only those who have sentiment and taste are able to feel and realize the latter ones.<sup>5</sup>

4 Lussy, *Musical Expression*, 223.

5 “MOUVEMENT, s. m. Degré de vitesse ou de lenteur que donne à la mesure le caractère de la pièce qu’on exécute. Il y a cinq principales modifications de mouvement, qui, dans l’ordre du lent au vite, s’expriment par les mots *largo*, *adagio*, *andante*, *allegro*, *presto*: chacun de ces degrés se subdivise et se modifie encore en d’autres, dans lesquels il faut distinguer ceux qui n’indiquent que le degré de vitesse ou de lenteur, comme *larghetto*, *andantino*, *moderato*, *allegretto*, *prestissimo*, et ceux qui marquent, de plus, le caractère et l’expression de l’air, comme *agitato*, *brillante*, *appassionato*, *strepitoso*, *con fuoco*, *con brio*, etc. Les premiers peuvent être sentis par tous les musiciens; mais il n’y a que ceux qui ont du sentiment et du goût qui sentent et rendent les autres.” François Henri Joseph Castil-Blaze, *Dictionnaire de Musique Moderne*, vol. 2 (Paris: Au magasin de musique de la lyre moderne, 1825), 55.

The tempo itself is a parameter that we may be able to measure objectively. As Castil-Blaze points out, however, it does not provide sufficient information to realize a piece of music completely. A complete realization includes ingredients that are difficult to measure, and are determined by the “character” and “expression” of the piece – these facets of the performance depend upon the good taste and the emotional capacity of the performer.

Rougnon also raises the question of tempo in his preface. His analysis is based on experience: each of the Italian terms specifies a tempo, but each term is also associated with a specific character. The concept of “expression” plays a great role in the context of tempo as it does in the context of dynamics:

Usage and tradition have distanced certain words from their original meaning by translating them in a very approximate way. As an example, I will take the word *allegro*, which means merry. Its meaning expanded with use, resulting in a term that indicates a fast tempo, and which can be applied equally well to either a happy or a serious composition. Usage and tradition have thus, in this case, created their own law. All the Italian terms that are used to indicate tempo and nuance are means of revealing the aesthetic that determines what in music are called the style and the color. It is, therefore, essential for those who work with music to know, or learn, the precise meaning of all these words.

That is the author’s purpose in this work, in which are also to be found some extended essays on tempo and nuance, and on the metronome and the use of that ingenious instrument, which helps to indicate the various degrees of rapidity and slowness of the tempo of the pieces with mathematical precision.<sup>6</sup>

6 “L’usage et la tradition ont aussi un peu éloigné certains mots de leur sens radical, en leur donnant une traduction très approximative. Ainsi je citerai comme exemple le mot *allegro*, qui veut dire gai. L’usage en a élargi la signification et en a fait un terme indiquant un mouvement vif pouvant s’appliquer aussi bien à une composition gaie qu’à une composition sérieuse. L’usage et la tradition ont donc fait loi en cette circonstance. Toutes les locutions italiennes employées pour indiquer les mouvements et les nuances sont des moyens révélateurs d’une esthétique qui détermine ce qu’on appelle en musique le style et la couleur. Il est donc essentiel, pour tous ceux qui s’occupent de musique, de connaître ou de faire connaître exactement la portée expressive de toutes ces locutions.

Tel est le but qu’a voulu atteindre l’auteur de cet ouvrage, dans lequel on trouvera, en outre, des études assez étendues sur les mouvements et les nuances d’expression dans la musique, ainsi que sur le métronome et sur l’emploi de cet ingénieux instrument à l’aide duquel les différents degrés de vitesse et de lenteur dans les mou-

## The Metronome

Publications about the metronome are myriad, and a full recounting of the origins of this invention would call for a study of its own. The interpretation of metronome marks in the early nineteenth century has long been a topic of discussion, and I will not explore that discussion in depth here. The interested reader will find extensive material in standard resources such as Grove's Dictionary and RILM. This article will focus on nineteenth-century France, and knowledge that was readily available to practicing musicians then, but was largely lost over the course of the twentieth century.

### *Description of "Maelzel's Metronome"*

During the first years after Johann Nepomuk Maelzel (1772–1838) invented his now-famous metronome, as the new model began to gain a foothold, contemporary reports saw it first and foremost as a pendulum:

MÉTRONOME ... This apparatus is a pendulum that marks the duration of the measure by how quickly or slowly it oscillates... we owe this invention to Mr. Maelzel – or rather, it is he who has perfected it, because the *métronome* has existed for over a century, under the name *chronomètre*.<sup>7</sup>

Earlier methods of indicating tempo in an objective way had included hand motions, walking pace, and the simple swinging of a pendulum. The conception of the metronome as a pendulum followed in that tradition.

The fact that Maelzel's metronome was thought of as a "pendulum" is significant, for the terminology surely influenced the way the device was used. And even some metronomes that came after Maelzel, especially the simpler and cheaper ones, did in fact use a simple pendulum to indicate the beat – more on this below.

The *chronomètre* works on the well-known principle that the length of a pendulum correlates directly with its frequency – its tempo. That principle, however, has one great practical disadvantage. A pendulum needs to be fairly long in order to indicate a musical tempo of even average speed, say 60 beats per minute. Thus, it was not until the principle of the double-ended vements des morceaux, sont indiqués avec une exactitude mathématique." Rougnon, *Dictionnaire Musical*, ix.

<sup>7</sup> Castil-Blaze, *Dictionnaire*, 38.



Figure 1. Loulié's *chronomètre*. Loulié, *Elements de Musiques*. Bayerische Staatsbibliothek München, Mus.th. 2120, p. 108.

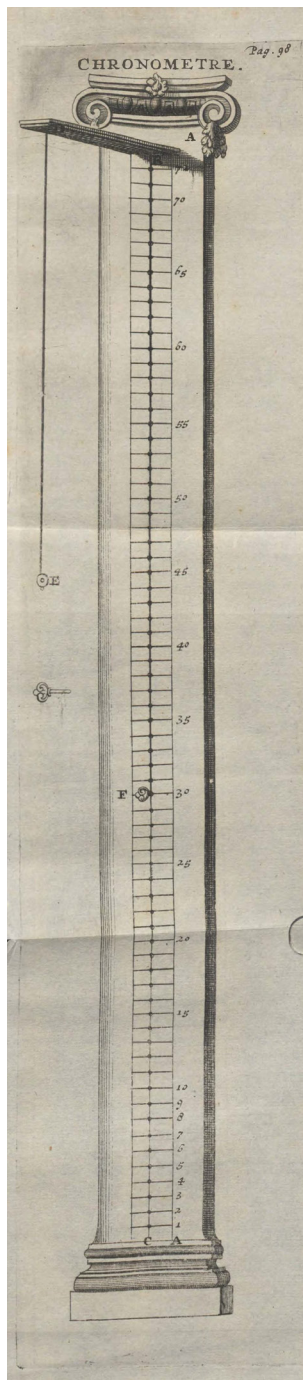




Figure 2. Maelzel metronome. The calibration of the scale goes from 50 to 160. The design of the scale clearly shows that the weight must be placed under the corresponding line. Musical Instrument Museum, Brussels, no. 3388.

pendulum was introduced that devices to indicate the beat really became widely used. The double-ended pendulum, with weights on both sides of the pivot point, made it possible to produce even very slow tempi using a shorter, rigid stem. The principle of the counterweight was developed by Dietrich Nikolaus Winkel between 1810 and 1814. Maelzel patented the system and brought it to market, with the consequence that it is Maelzel's name that appears most frequently on all music produced from 1815 until today.

Figure 2 shows a classic Maelzel metronome. The 1815 metronome



Figure 3. “Métronomie de Maelzel/Par brevet d’invention/Paris.Londres.Vienne” (marked 1815). From the collection of Karl Schreinzer. Germanisches Nationalmuseum, Nuremberg, no. MI403\_4.

shown in figure 3 has the interesting additional feature of an adjustment screw to level the device, which disappears in later models. The adjustment screw also appears on a specimen made in London, shown in figure 4.

The Germanisches Nationalmuseum, finally, also owns a specimen with a more elaborately calibrated scale, shown in figure 5. In addition to a stamp, it displays the name “MAEL[ZEL]” along with Italian tempo marks. The calibrations run from 40 to 176, and the tempo marks are *Allegro*, *Andante*, *Adagio*, *Larghetto*, and *Largo*.

One common feature of all of these metronomes deserves particular attention: their weights are in the shape of an inverted isosceles triangle or a trapezoid, and there is always space left at the bottom of the scale, but not always at the top. Thus, there can be no mistake about how to position the weight on the pendulum: its top edge needs to be placed directly under the desired number.

This basic design remained unchanged from the time of Maelzel’s patent until the arrival of electric and digital devices. After the metronome began to be produced on a commercial scale, a few features were added: for instance, a small bell that could be set to mark the downbeats of different meters. Figure 6 shows an advertisement from the *Revue et gazette musicale*



Figure 4. "Maelzel's Metronome London/By letters patent." From the collection of Karl Schreinzer. Germanisches Nationalmuseum, no. MI403\_1.



Figure 5. Metronome from the collection of Karl Schreinzer. Germanisches Nationalmuseum, no. MI403\_5.

**Etrennes musicales.**

**MÉTRONOMES DE MAELZEL.**

Ordinaire, boîte acajou.	20 fr.
Indiquant le temps fort.	50 fr.

**J. WAGNER** deveu, horloger mecanicien, rue Montmartre, 118, qui seul a été autorisé par **MAELZEL** pour la fabrication de cet utile instrument, prie le public de ne pas confondre ses **MÉTRONOMES** avec une imitation imparfaite à laquelle on a soin de donner toute la ressemblance extérieure de ceux de sa fabrique; toutefois le nom de l'inventeur est supprimé sur la plaque; **M. Wagner** prévient donc que tous ses instruments portent son estampille et sa signature dans ses boîtes. **M. Wagner** fabrique aussi **GROSSES HORLOGES** (à bas prix) pour **EGLISES, CHATEAUX, et USINES.**

Figure 6. Advertisement for metronome with an adjustable bell that “loudly indicates the strong beat.” The price is ten francs higher than the basic model.

*de Paris* (RGM) documenting this feature.<sup>8</sup> We also see an extension of the scale, from the original 50–160 to 40–208. During the course of the nineteenth century, it became more or less habitual to append to the scale the Italian terms that corresponded to the numeric calibration. The construction of the device, however, did not change.

And so we return to Rougnon, who in the third part of his dictionary provides an elaborate description of “the metronome: its usefulness – its use – its history.” His description includes the important term “balancier ou pendule” (“balancing arm or pendulum”); its “oscillations are executed with a clean, dry sound like a kind of tick-tock” (figure 7).<sup>9</sup> The calibrations run from 40 to 208 and also give the corresponding tempo marks. The drawing clearly shows that it is impossible to place the weight incorrectly.

Besides the small additions mentioned above, we also see a variety of attempts to make the metronome cheaper and lighter, and to find other forms that could serve the same purpose. Most of these attempts involved pendulums and had no wind-up mechanism. Again, it is worth noting that in all these cases we are dealing with a pendulum that produces visible

8 *Revue et Gazette Musicale de Paris* (1839): 588.

9 Rougnon, *Dictionnaire Musical*, 208.

## § II. — DESCRIPTION DU MÉTRONOME

Le *métronome* (du grec *métron*, mesure et *nomos*, loi, règle, règle-mesure) est un petit instrument composé d'une boîte en forme de pyramide quadrangulaire contenant un balancier ou pendule en acier en forme de tige allongée, lequel est mis en mouvement par un mécanisme intérieur d'horlogerie et dont les oscillations s'exécutent en formant un bruit sec et net comme une espèce de tic-tac.

Échelle du métronome  
et division de cette échelle.

40	42
44	46
48	50
52	54
56	58
60	63
66	69
72	76
80	84
88	92
96	100
104	108
112	116
120	126
132	138
144	152
160	168
176	184
192	200
208	

Figure représentant un métronome.

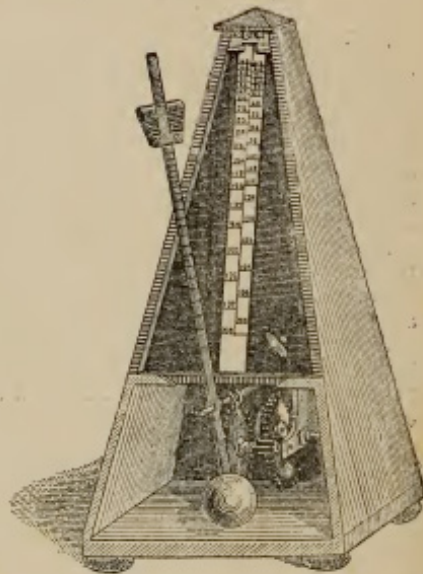


Figure 7. Rougnon's description of the metronome.

movement. This is in contrast to the majority of metronomes today, that, apart from a ticking noise, provide at most a small light or a small virtual pendulum on an electronic display.

Among the many alternatives developed to the rather costly clockwork mechanism, the most frequent solution was a simple pendulum, a calibrated cord with a small weight attached.<sup>10</sup> As I mentioned above, the disadvantage here is that the string has to be quite long to indicate a speed as slow as 60 beats per minute – approximately as long as the pendulum of a

10 See the “chronomètre,” above.

floor clock. Such devices have the advantage of being easy to make, but the disadvantage of being easy to lose.

### *Alternative metronome designs*

The simpler style of metronome that consisted of only a pendulum, without a clockwork mechanism, is represented by the following two specimens from the collection of the Musical Instrument Museum in Brussels. Both are by Léon Roques.

The first of these, a “*métronome métrique*” from 1873, consists of “a small board, 58 cm by 12 cm, with graduations, and equipped with a pendulum... The board hangs from the wall in an inclined position that allows the pendulum to move back and forth” (figure 8).<sup>11</sup>

In 1873, the RGM published a description of this very invention. Its conclusion: “A metronome is indispensable. After many predecessors, the *métronome métrique* makes its appearance with the twofold advantage of perfect precision and a very low price.”<sup>12</sup>

As I have already mentioned, this metronome is designed as a simple pendulum, not driven by any mechanism. The pendulum consists of a lead weight hung on a doubled cord. Doubling the cord ensures that the pendulum can only swing in one plane. The length, of course, limits the available tempi: it is approximately 60 cm, which corresponds to a range of 80–208 movements per minute. The ingenuity of Roques’ design lies in the fact that it adds two more scales, which indicate values from 40–104. By counting either two or three “oscillations,” depending on the scale, it is possible to arrive at slower tempi. In this way, the classic range of 40–208 is attained.

The *métronome métrique* was a simple, lightweight, and cheap alternative to the *système Maelzel*. However, whether it is more accurate than the average Maelzel (or other metronome makers like Paquet, Wagner, or Wittner) remains very much an open question. The exact placement of the weight is important on this device, even more so than when using the classic metronome, because the *métronome métrique* has no notches to serve as reference points. In practice, the overall size of the construction and pendulum are a disadvantage. The device is not very portable, and in most cases, the player

11 Victor-Charles Mahillon, *Catalogue descriptif et analytique du Musée Instrumental du Conservatoire Royal de Musique de Bruxelles* vol. 3, nr. 1691, facsimile (Brussels: les Amis de la Musique: 1978), 239, <https://archive.org/details/cataloguedescri00inst-goog/page/n12/mode/1up>

12 *Revue et Gazette Musicale de Paris* (1873): 317.

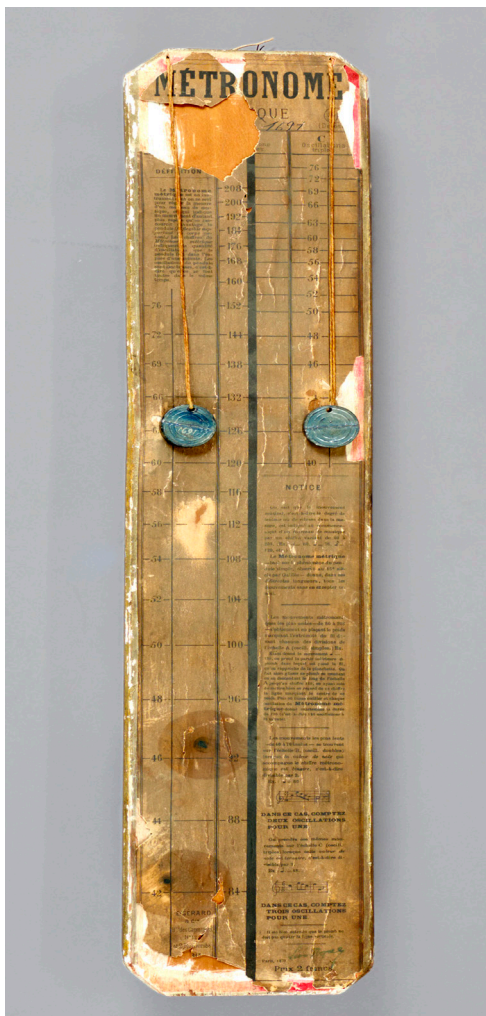


Figure 8. The *métronome métrique* preserved in Brussels is heavily damaged and not in usable condition, but it is easy to envisage how it functioned. CC BY– MRAH/ KMKG.

or composer will have to keep standing up to set the pendulum in motion. Importantly, the device does not make a ticking sound: the tempo is visible, but not audible. I will return to this point later.

Roques' *métronome normal* from 1887 (figure 9) consisted of:

a small board 29 cm long and 3 cm wide...the length of the string, and thus the speed of the oscillations, are adjusted by means of a sliding counterweight behind the board. The board is attached



Figure 9. *Métronome normal*.  
Photo by the author.



to one of the walls of the box [or frame] at an angle, to permit the pendulum to oscillate freely.<sup>13</sup>

The principle is the same as in the *métronome métrique*. The *métronome normal*, however, is only half as big, making it easier to transport and use. Besides being more compact, it also provides a tempo range of 30–236, by means of the same system of counting multiple oscillations per beat. More-

13 Mahillon, *Catalogue*, vol. 3, nr. 1687, 235.

over, all of the values in that range are available. For example, to measure 31 beats per minute (MM=31), one can place the weight at the height that corresponds to 124: 124 divided by four is 31, so four single movements of the pendulum will indicate one beat, at a rate of 31 beats per minute.

The inspiration for this metronome is said to have come from Camille Saint-Saëns. In a letter to the French Academy of Sciences, Saint-Saëns proposed deciding upon a standard *métronome normal*, analogous to the *diapason normal*. An English translation of his letter appeared in the *Musical Times* on August 1, 1886 (figure 10). Following an introduction about the invention of the metronome, where he draws comparisons to standard pitch – the so-called *diapason normal* – and the plastic arts, Saint-Saëns bemoans the lack of precision in the available metronomes, which do not lead musicians, but mislead them. Therefore, he asks the Academy to develop a *métronome normal* that may serve as an official standard for the production of new metronomes. Rougnon informs us about the consequences of Saint-Saëns' letter:

A few months after the communication from Saint-Saëns, Mr. Léon Roques, a composer in Paris, presented a new metronome to the Academy ... Roques' *Métronome normal* can produce from 30 to 236 oscillations per minute, whereas Maëzel's only goes from 40 to 208. The latter has 30 different tempi, while the one by Roque provides 90. The oscillations of the pendulum are silent, and after adopting the tempo of the composer, one can continue with the performance of the piece of music without having to interrupt the theme as soon as it is begun to stop the tick-tock, as one must do with Maëzel's metronome.<sup>14</sup>

The Academy gave a favorable report to the *métronome normal*, and a few months later, the topic came up again, as Gustave Hirn laid out the advantages and disadvantages of both the classical metronome, with a counterweight and clockwork mechanism, and gravity pendulum metronomes like the *métronome normal*. Hirn's argument reveals a preference for the noiseless pendulum. His reasons were of a musical nature, like those of Carl Maria von Weber, one of the authorities to whom he refers.<sup>15</sup> Hirn makes an in-

14 Rougnon, *Dictionnaire Musical*, 229.

15 Gustave Adophe Hirn, *Construction et emploi du métronome en musique* (Paris: Gauthier-Villars, 1887), 3. See also the discussion below.

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TRANSLATION.

*The Normal Metronome. Note by M. Saint-Saëns.*

“MUSIC differs from the plastic arts in that the essential element of the latter is the division of space, whereas that of the former is the division of time.

“In fact, music is the art of combining sounds either successively (as in melody) or simultaneously (as in harmony). In either case, a sound being composed of a certain number of isochronous vibrations of given duration, all music is reduced to a relation between numbers. Melody and harmony are merely rhythmical combinations.

“We may regard sounds (1) from the point of view of the greater or less rapidity of the vibrations which compose them; (2) from their duration. In either case, the relation between the different sounds constitutes in itself alone the whole musical interest. In the fifteenth and sixteenth centuries, no other point was considered. The pitch was arbitrary, and there were no directions as to the rate of execution, or what is termed in music the time of a piece.

“The progress of the art of singing, appealing to all the resources of the voice throughout the vocal scale, gradually made apparent the necessity of a definite starting point as to pitch, and each country adopted its own. As this art became still further developed, the want of a common standard of pitch was universally felt, and the Académie des Sciences solved the problem by introducing the normal diapason, which all nations are gradually adopting. On the other hand, the development of the combinations of rhythm showed the necessity for determining the time of pieces of music. This was done in vague terms, which every one interpreted according to his own ideas, and no other method was adopted until the appearance of the metronome. This instrument, invented at the end of the last century by Stœckel, and improved by Maelzel, is a pendulum provided with a ‘movable bob’ and a graduated scale, based upon the subdivisions of a minute. In the metronomes most frequently employed, the subdivisions range from  $\frac{1}{40}$  to  $\frac{1}{60}$  of a minute.

“These instruments are universally employed. But to be of any practical utility they must be accurate, and unfortunately this is a quality that very few of them possess. The musical world is supplied with badly constructed and badly regulated metronomes, which mislead musicians instead of guiding them.

“The Académie, which has rendered so great a service to music by the introduction of the normal diapason, would complete its work by endowing it also with a normal metronome, regulated mathematically, and by obtaining a guarantee from the Government that metronomes before being delivered to the public should be tested and stamped, as are tuning-forks, weights, and measures.”

Figure 10. *Musical Times* on August 1, 1886. Gatehouse, T. E. “M. Saint-Saëns’s Normal Metronome.” *The Musical Times and Singing Class Circular* 27, no. 522 (1886): 488–89. <https://doi.org/10.2307/3363901>.

teresting comment about the precision of commercially available metronomes: he actually claims that a metronome does not need to be extremely accurate. It just needs to provide an approximate indication of the tempo.<sup>16</sup>

Of course, this does not answer the question of just how accurate such metronomes really were. Assuming that the device itself is constructed with the utmost care – a necessary condition – the decisive factor becomes the exact length of the pendulum, which the user adjusts according to the calibration on the scale. Really, however, we need look no further than the fact that the model fell completely into disuse. This alone ought to indicate that it was of limited value, or rather limited reliability. The fragile nature of the construction might certainly be part of the reason; on the other hand, it makes sense to assume that if the accuracy of the *métronome normale* really had been unarguable, sturdier models would have been built.

One example of a soundless metronome that has a counterweight but no clockwork mechanism is preserved in Stockholm. This device was built by Breitkopf & Härtel, and has a scale calibrated from 52 to 160. It is not dated, but such a scale suggests that it is a fairly old model (figure 11).

We see, therefore, that attempts to make clockwork metronome mechanisms simpler and cheaper did not meet with much success. Occasionally, alternatives were also offered for the system of metronome marks itself. Thus we find some older German scores marked with a pendulum length, rather than oscillations per minute. An example is the first edition of Christian Heinrich Rinck's *Six Variations pour l'orgue avec pedalle obligées sur un Air de Corelli*, op. 56 ("Ik zag Cecilia kommen"), published by Schott in Mainz (music example 1).

A few decades later, in 1877, we find a good example of an alternative system of calibration in Mendel and Reissmann's *Musikalisches Conversations-Lexikon*.<sup>17</sup> The *Lexikon* offers a history of the metronome, followed by a description of the *Chronometer* by Gottfried Weber (figure 12). This was a cord upon which specific lengths were marked off by knots. In this case, a length of 38 Rhenish or Viennese inches corresponded to MM=60, and so on. The entry concludes, however, by remarking that if a performer lacks musical insight, even the most precise metronome will be of little help.

16 Hirn, *Construction et emploi du métronome*, 5.

17 Hermann Mendel and August Reissmann, eds, *Musikalisches Conversations-Lexikon. Eine Encyclopädie der gesammten musikalischen Wissenschaften. Für Gebildete aller Stände*, vol. 7 (Berlin: Verlag von R. Oppenheim, 1877), 137–8, [https://www.google.se/books/edition/Musikalisches\\_Conversations\\_Lexikon/v9PpY1vpCuwC?hl=sv&gbpv=1&dq=Musikalisches%20Conversations-Lexikon&pg=PA138&printsec=frontcover](https://www.google.se/books/edition/Musikalisches_Conversations_Lexikon/v9PpY1vpCuwC?hl=sv&gbpv=1&dq=Musikalisches%20Conversations-Lexikon&pg=PA138&printsec=frontcover)



Figure 11. Metronome by Breitkopf & Härtel.  
The Swedish Museum of Performing Arts, cat.  
no. F679.

Music example 1. Christian Heinrich Rinck, Six Variations ... sur un Air de Corelli ("Ik zag Cecilia kommen"), op. 56 (Schott: Mainz, n.d.).

The music writer Mahillon, too, questioned the point of metronome marks:

To define duration in relationship to the minute is not justifiable; it rests upon the artificial foundation of an arbitrary division of time, and it only complicates the use of the metronome unnecessarily. A metronome that is based on length, on the other hand, relies upon a fixed measure: the meter.<sup>18</sup>

I will leave the responsibility for this statement with Mahillon! It was with this goal in mind, nevertheless, that Mahillon in 1888 developed his *métro-nome de poche* (pocket metronome) in 1888, which used a pendulum with lengths marked on it.<sup>19</sup> "For example," he says, "instead of writing: ♩ = 116 (which would mean that the duration of a quarter note is one one-hundred-sixteenth of a minute), one simply writes: ♩ = 0<sup>m</sup>267." Simple, indeed! But the idea was not even new. Many years earlier, Baron Blein had suggest-

18 Mahillon, *Catalogue*, vol. 3, 236.

19 Mahillon, *Catalogue*, vol. 3, nr. 1688, 235.

**Metronom**, Metrometer, Taktmesser, ein Instrument zur genauen Bestimmung des Grades der Bewegung. Die erste Idee zu einem solchen Instrument scheint von François Loulié, einem Pariser Tonkünstler, ausgegangen zu sein, der 1702 starb. Sein 1696 in Paris erschienenes Werk: »*Elémens ou principes de Musique*« enthält auch eine Zeichnung und Unterweisung im Gebrauch des Chronomètre. Saveur, der berühmte französische Gelehrte (1653 bis 1716), der für die Wissenschaft der Klanglehre so erfolgreiche Untersuchungen machte, erfand auch einen Chronomètre, der indess eben so wenig grössere Verbreitung fand, als die ferneren Versuche, ein solches Instrument zu construiren. Enbrayg (Dons), ein französischer Gelehrter zu Paris, veröffentlichte in den »*Mémoir. des sciences*« (1732) eine Anweisung über den Gebrauch des M. Gabory rath in seiner Schrift: »*Manuel utile et curieux sur la mesure du tems*« (1771) zur Bestimmung des Zeitmaasses den Gebrauch des Pendels. Nach ähnlichen Grundsätzen ist das Instrument construirt, welches Avaux, ein berühmter Violinspieler und Componist, in dem »*Journ. encyclop.*« (Juni 1784) empfiehlt. Auch die Pendeluhr, welche Pelletier, ein in Paris um das J. 1782 lebender Mechanikus, construirte zur Bestimmung des musikalischen Zeitmaasses, fand keine weitere Verbreitung. In Deutschland fanden diese Bestrebungen in dem Prediger an der französischen Kirche, Mitglied der Akademie der Wissenschaften und Professor der Mathematik an der Ritterakademie, Abel Burja, ihren, wie es scheint, ersten Förderer. 1790 erschien seine »Beschreibung eines musikalischen Zeitmaasses« (Berlin, Petit und Sohn). In demselben Jahre noch erschienen bei Breitkopf und Härtel in Leipzig von dem Cantor Weiske in Meissen 12 geistliche Gesänge, denen eine Beschreibung und Zeichnung eines Taktmessers beigefügt war. 1796 endlich gab Cantor Stöckel zu Burg in dem 6. Stück des »*Journals für Deutschland*«, und dann später in der »*Leipziger Musikzeitung*« die Beschreibung jenes Instruments, das seinem Zweck entspricht, aber nur zu complicirt und kostspielig war und deshalb leicht von dem M., den M. Mälzel zu Wien 1816 erfand, oder, wie auch auch behauptet wird, nur nach der Erfindung von Winkler in Amsterdam verbesserte. Das Instrument besteht bekanntlich aus einem, durch Räderwerk in Bewegung gesetzten Pendel, der mit einem verschiebbaren Gewicht versehen ist. Am Pendel ist eine Scala, in 110 Grad von 50–160 eingetheilt, angebracht, durch welche der Stand jenes Gewichtes bestimmt wird, und nach diesem lassen sich wieder die Schwingungen des Pendels genau an-

geben. Der Pendel schwingt in einer Minute genau so vielmal, als die Grundzahl besagt, auf welcher das Gewicht steht. Hierdurch ist der Zeitwerth jeder Note genau zu bestimmen. Soll die Viertelnote beispielsweise den 50. Theil einer Minute einnehmen, so stellt man das Gewicht auf 50 der Scala, jeder Pendelschlag giebt das Zeitmaass des Viertels an. Dieser nun wird am Anfang des Tonstückes durch die Bezeichnung M. M.  $\frac{1}{4}$  = 50 vermerkt, was also heisst: jeder Pendelschlag giebt den Zeitwerth eines Viertels an, wenn das Gewicht auf 50 der Scala gerückt wird. Einen einfacheren Apparat construirte Gottfried Weber. Sein Chronometer besteht nur aus einem mit einem Gewicht beschwerten Faden von bestimmter Länge, der sich nach gewissen durch Knoten bezeichneten Längemaassen verkürzen lässt. Ein Pendel von 38 rheinl. oder Wiener Zoll Länge schlägt gerade einmal in einer Secunde, mithin genau so geschwind, wie Mälzel's M., wenn das Gewicht auf 60 steht. Darnach nun ist die Länge des Fadens beim Chronometer zu reduciren, um durch diesen die entsprechenden Pendelschläge zu gewinnen.

Mälzel's Metronom.	Rheinische Zoll.
50	= 55
52	= 50
54	= 47 u. s. w.

Der Werth eines solchen Instrumentes ist nicht hoch anzuschlagen, und eigentlich nur bei Übungen mit einigem Vortheil zu verwenden. Die Bestimmung des rechten Tempos kann man im Uebrigen der Einsicht des Ausführenden überlassen. Hat er Einsicht genug, den Werth eines Tonstückes zu fassen, bedarf er keiner specielleren Angabe des Zeitmaasses, als die ihm die Tempo- bezeichnung giebt; hat er jene Einsicht nicht, dann wird ihm auch die genaueste metronomische Bezeichnung nicht viel helfen.

Figure 12. S.v. "Metronom" in Musikalisches Conversations-Lexikon from 1877 (p. 137–8, cropped).

**DU MOUVEMENT EN MUSIQUE.**

On a assigné des noms différents aux divers mouvements de la musique, depuis le plus lent jusqu'au plus rapide. Ces noms, qui nous sont venus de l'Italie avec la science musicale, n'ont toutefois été, comme l'ont observé MM. les membres de l'Institut, Académie des beaux-arts, section de la composition musicale, dans leur rapport sur l'ingénieur métronome de Maelzel, que des indications vagues, laissant une trop grande latitude à l'arbitraire. Plusieurs d'entre eux même ne donnent aucune indication de mouvement; car *allegro* et *allegretto*, qui ne signifient autre chose que *gai* et *un peu gai*, n'auraient dû s'appliquer qu'à l'expression du mode du chant.

Maelzel a donc rendu un service éminent aux compositeurs ainsi qu'aux amateurs et aux étudiants en donnant aux premiers la faculté d'exprimer les diverses nuances de leurs intentions de mouvement, avec la précision la plus minutieuse, et aux autres le moyen de les comprendre et de s'exercer à l'exacte division comme à l'égalité des temps des diverses mesures.

Maelzel a judicieusement adopté pour unité du temps la minute astronomique dont il désigne les portions employées aux valeurs des notes, soit blanches pointées, soit blanches, noires pointées, noires et croches, en nombres qui expriment combien de fois chacune d'elles est contenue dans l'unité de minute. En cela nous trouvons toutefois qu'il existe un contre-sens qu'il eût été important et facile

d'éviter. En effet, prenons la noire d'un andante où il donne pour signe du mouvement,  $n = 60$ ; il est évident qu'il eût été plus exact et tout aussi simple de dire  $n = 1/60$ , ou  $n = 1''$ , c'est-à-dire la noire est égale en durée à un soixantième de minute ou à une seconde. On voit que lorsque Maelzel indique  $n = 420$ ;  $n = 180$ ;  $n = 180$ ;  $n = 240$ ;  $n = 500$ , ainsi que  $n = 50$ , c'est-à-dire des multiples ou diviseurs exacts de 60, l'annotation que nous proposons serait  $n = 1/12$ ;  $n = 1/3$ ;  $n = 1/4$ ;  $n = 1/5$  et  $n = 2$ ; et que les mouvements intermédiaires qu'il désigne par  $n = 66$ ;  $n = 75$ ;  $n = 100$ ;  $n = 40$ , seraient exprimés par  $n = 1/66$ ;  $n = 1/75$ ;  $n = 1/100$ ;  $n = 1/40$ , etc., qui auraient du moins alors l'avantage d'indiquer exactement quelque chose de vrai.

L'expression la plus simple  $n = 1''$ , doit être considérée comme un type normal dont les multiples deviendraient demi-normal, quart normal, etc., et les divisions double normal, triple normal, etc.

Nous croyons devoir donner ici un tableau de ces divers mouvements rapportés tous à la noire, au lieu de ses multiples ou diviseurs, en en faisant l'application à des morceaux de musique tirés des quintetti de M. Onslow, qui a eu le soin scrupuleux de les annoter d'après les indications du métronome de Maelzel. Nous y avons joint nos signes et dénominations correspondantes prises elles-mêmes dans les valeurs de ces signes.

Le baron BLEIN.

TABLEAU DE DIVERS MOUVEMENTS COMPARÉS RELATIVEMENT A LA DURÉE D'UNE NOIRE POUR CHACUN D'EUX.

DÉNOMINATIONS		MESURES.	NUMÉROS des quintetti de M. Onslow.	INDICATIONS		
EN USAGE.	PROPOSÉS.			SUIVANT MAELZEL.	PROPOSÉS.	
Grave . . . . .	Demi normal.	C	n	n = 30	n = 2''.	N. 2
Andante cantabile . . . . .	20 onzièmes.	3/8	14°	n = 66	n = 1/33 et n = 20''/11.	
Idem . . . . .	15 onzièmes.	3/8	3°	n = 88	n = 1/44 et n = 15''/11.	
Largo sostenuto . . . . .	6 cinquièmes.	C	5°	n = 50	n = 1/50 et n = 6''/5.	
Largo religioso . . . . .	Normal.	C	7° et 10°	n = 60	n = 1''.	N.
Adagio espressivo . . . . .	10 onzièmes.	C	12°	n = 66	n = 1/66 et n = 10''/11.	
Andante mesto . . . . .	4 onzièmes.	C	11°	n = 75	n = 1/75 et (à peu près) n = 4''/5.	
Andante sostenuto . . . . .	3 quarts.	C	9°	n = 80	n = 1/80 et n = 3''/4.	
Allegretto grazioso . . . . .	2 tiers.	2/4	11°	n = 88	n = 1/88 et (à peu près) 2''/3.	
Allegretto animato . . . . .	5 huitièmes.	2/4	14°	n = 96	n = 1/96 et n = 5''/8.	
Allegro con moto . . . . .	3 cinquièmes.	2/4	5°	n = 100	n = 1/100 et n = 3''/5.	
Allegro moderato e espressivo . . . . .	6 onzièmes.	C	15°	n = 112	n = 1/112 et n = 15''/28 ou = 6''/11.	
Allegro moderato . . . . .	Double normal.	C	2°	n = 120	n = 1''/2.	2 N.
Allegro n. tr. presto . . . . .	10 vingt-troisièmes.	C	12°	n = 133	n = 1/133 et n = 10''/23.	
Allegro vivace . . . . .	5 douzièmes.	2/4	4°	n = 144	n = 1/144 et n = 5''/12.	
Allegro espr. n. tr. moto . . . . .	3 huitièmes.	2/4	15°	n = 160	n = 1/160 et n = 3''/8.	
Allegro finale . . . . .	Triple normal.	n	n	n = 180	n = 1/180 et n = 1''/3.	3 N.
Allegro vivace . . . . .	5 seizièmes.	2/4	8°	n = 96	n = 1/96 et n = 5''/16.	
Allegro di minnetto . . . . .	5 dix-huitièmes.	3/4	4°	n = 72	n = 1/72 et n = 5''/18.	
Idem . . . . .	Quadruple normal.	3/4	1°	n = 80	n = 1''/8.	4 N.
Minuetto n. tr. presto . . . . .	Quintuple normal.	3/4	15°	n = 100	n = 1''/5.	5 N.
Minnetto presto . . . . .	Sextuple normal.	3/4	9°	n = 120	n = 1''/6.	6 N.

Figure 13. Blein's 1839 proposal for the reform of metronome marks. The table provides a conversion from metronome marks to time measured in seconds.



ed replacing metronome marks with actual durations in seconds, or even fractions of seconds (figure 13).<sup>20</sup>

Even in the wake of Roques' *métronome normal*, the search for absolute accuracy continued. The Cité de la Musique holds several beautiful specimens of the so-called "métronome de précision" from the early twentieth century (figure 14). Here, the length of the pendulum can be adjusted very precisely. A mechanism produces an audible beat, either with each movement of the pendulum, or with each second, third, or fourth movement.

The existence of these "precision" metronomes once again raises the question of how accurate the normal models were. That question is the subject of the next section.

### *The Accuracy of the Metronome*

I will now return briefly to the issue Saint-Saëns raises above, and the development of the *métronome normal* and *métronome de précision*. Both invite us to question the accuracy of the mechanical metronomes in common use. To my knowledge, there is little or no evidence that clearly indicates either that any real problem existed, or what the exact nature of the problem would have been. Moreover, there is certainly reason to suppose that for most metronomes, any problem with accuracy would not have been a great one. Clocks and watches have mechanisms similar to metronomes; they were manufactured on an even larger scale, and everything seems to indicate that appointments and train timetables could be met well enough. Meanwhile, the accuracy of the metronome calibrations is on the order of something like a tape measure, where any likely deviation would be of a magnitude too small to compromise even the success of a tailor-made suit.

Indeed, Saint-Saëns' extreme position provoked a reaction at the French Academy of Sciences. In a session on June 13, 1887, Gustave Hirn rejected the concept of the *métronome normal*. Hirn's position, briefly, was that the accuracy of the metronome was usually adequate. In fact, since the principle of the graduated scale itself was not being questioned, the *métronome normal* already existed. The existence of imperfect specimens, Hirn

20 *Revue et Gazette Musicale de Paris* (1839): 571. François Ange Alexandre Blein, 1767–1845, was a high-ranking military officer and the author of the controversial *Principes de mélodie et d'harmonie, déduits de la théorie des vibrations*, 1838.



Figure 14. A so-called “métronomie de précision”. Métronome à pendule, Société des métronomes de précision, Paris, vers 1910, E.2001.6.1. Collections Musée de la musique / photo Jean-Marc Anglès, 2001.

argued, was not a reason to invent something new; it was much better to make sure that the familiar model was made properly.<sup>21</sup>

To test these positions, I took a series of sample readings at the Musical Instrument Museum in Brussels.<sup>22</sup> The metronome shown in figure 2 is no longer functioning. I tested four metronomes for accuracy at MM=60, MM=92, and MM=120. The first with catalogue number JT 148 shows minimal deviation – that is, less than one increment of the scale. Thus, the musical implications are negligible. The speed is slightly too slow, undoubtedly due to lack of maintenance. The second with catalogue number 0639 was also made by Maelzel.<sup>23</sup> It has the same, minimal deviation, which also was the case for catalog nos. JT 146 and JT 145. I found no deviation in any of the four large enough to have affected the musical discourse.

## Metronome Scales and the Italian Tempo Marks

Some writers and metronome makers have tried to convert the Italian tempo and expression marks into more objective, quantifiable metronome marks. The debate about the necessity of doing so began as soon as the metronome was invented. This is not the place to address the fundamental question, but it is certainly worth trying to establish a reliable overview of how the conversion was done. I will begin by presenting a few specific piano methods first, followed by some general reference works. I will then compare these with the scales found on the metronomes themselves.

The official method of the Paris conservatory for many years was Louis Adam's *Méthode de piano*; written in 1804, however, it was naturally too early to take account of Maelzel and his metronome. A hierarchical list of the Italian terms follows the usual order, with one exception: Adam considers *andantino* slower than *andante*. His remarks about playing "in tempo" never become very specific; they offer no fresh insight for our discussion.<sup>24</sup>

Hummel's later method was highly influential in France as well as in

21 Hirn, *Construction et emploi du métronome*, 7.

22 Videos from these tests are available from the author.

23 Mahillon, *Catalogue*, vol. 2, 49.

24 Louis Adam, *Méthode de piano du Conservatoire* (Paris: Nadermann 1804), 160–162. The description of the process of "tempo rubato," even though the specific term is not employed here, is nevertheless interesting.

Germany; in fact, it was translated into French in 1829.<sup>25</sup> The fifth chapter of part three offers advice about the virtues of the metronome and its operation and use.<sup>26</sup> Here, after a few general remarks, Hummel provides a table that matches Italian terms to metronome marks. He also considers the appropriate note values for counting the beat:

Table 1, drawn up by Maelzel himself, shows that the slowest tempo should be based upon a note value of no less than an eighth note; a moderate tempo, not less than a quarter note; and the fastest tempo not less than a half note...<sup>27</sup>

In this table, the slow tempi are matched with metronome marks of 50–110 for the eighth note (the quarter note at 110 must be a misprint; it is entirely inconsistent with the logic of the other meters). The transition between slow and moderate tempi comes at 60 beats per minute. In the fast tempi, it is necessary to start counting in whole notes at 160, since the original Maelzel metronome could only give 150 or 160 beats per minute.<sup>28</sup>

Hummel also brings up a tricky question: the Italian terms as used by earlier composers may correspond to very different metronome marks (figures 15–16).

...Table 2 shows how differently composers used to employ the very same words to indicate the tempi of their respective works, and how they often even contradicted themselves in this matter; which grievances have now ceased to exist. No. 3 depicts the division of the scale of the metronome.<sup>29</sup>

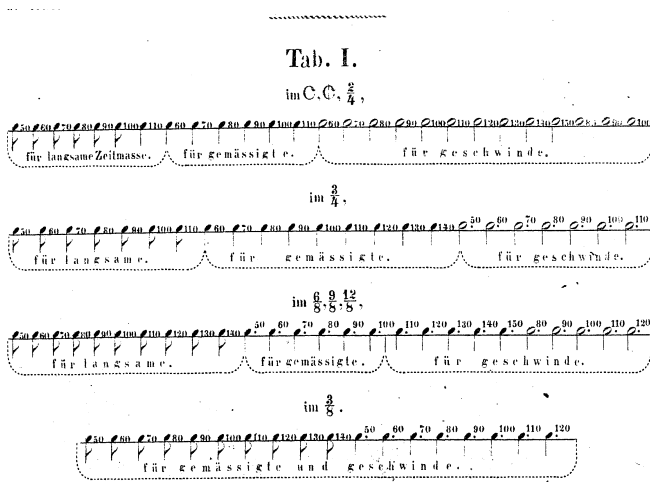
25 Johann Nepomuk Hummel, *Ausführliche theoretisch-practische Anweisung zum Piano-Forte-Spiel vom ersten Elementar-Unterrichte an bis zur vollkommensten Ausbildung* (Wien: Tobias Haslinger, [ca. 1839]), [https://s9.imslp.org/files/imglnks/usimg/9/92/IMSLP104933-PMLP214298-Hummel\\_-\\_Anweisung.pdf](https://s9.imslp.org/files/imglnks/usimg/9/92/IMSLP104933-PMLP214298-Hummel_-_Anweisung.pdf).

26 Hummel, *Anweisung*, 456–457.

27 “Aus der von Mälzel selbst abgefassten Tabelle No I. sieht man, dass im langsamsten Tempo die zur Gradebezeichnung zu wählende kürzeste Note nicht u n t e r einer Achtel-Note ist; im mässigen nicht unter einer Viertel-Note; und im schnellsten nicht unter einer halben Note....” Hummel, *Méthode complète*, 456–457.

28 See the metronome MIM no. 3388, above.

29 “...aus Tabelle No 2. [sieht man] wie verschiedenartig früher die Ansichten der Autoren über die Bezeichnung der Bewegung ihrer Werke durch dieselben Worte waren, und wie sie sich selbst oft darin widersprochen haben; welche Übelstände nun wegfallen. In No 3. sieht man die Grade-Eintheilung des Metronom’s abgebildet.” Hummel, *Anweisung zum Piano-Forte-Spiel*, 456.



XIX.

T.H.5201.

Figure 15. Hummel, *Anweisung*, 456.

We can compare Hummel’s directions and his first table to an actual scale, albeit a less detailed one, from the same period. We find this scale on Maelzel’s metronome shown in figure 5.

The scale indicates the following five tempo categories: Largo, Larghetto, Adagio, Andante, Allegro. The calibrations run from 40–176. No subdivisions are defined. Curiously, only one tempo is indicated, the *allegro*, that can be perceived as very fast. Accordingly, *andante* becomes a moderately fast tempo and *adagio* a moderate one, which represents a shift in comparison to the prevailing understanding of these tempos today.

Castil-Blaze adopts the 28 divisions given by Maelzel exactly as they appear in Hummel’s method, noting, “The metronome indicates 28 degrees of tempo.”<sup>30</sup> His next sentence confirms that he had Hummel’s method at hand: “Changing the musical value of the vibrations of the pendulum – the value might be an eighth note, for example, or a quarter note, a half note, or sometimes even a whole measure – results in a series of almost two hundred tempi

30 “Le métronome donne vingt-huit degrés de mouvement.” Castil-Blaze, *Dictionnaire de Musique*, vol. 2, 39.

Tab. II.

Benennung der Bewegungen.

Namen der Autoren.	Ursprüngliche Bezeichnung des Stückes.	Zeitmaß nach des Autors Willen und Angabe gemäss dem Metronom.	
		In Zeilen.	In Zeilen.
bei Paer	<i>Allegro moderato</i>	♩ = 50 Grade	C
.. Paer	<i>Allegro moderato</i>	♩ = 30 —	C
.. Mehul	<i>Allegro moderato</i>	♩ = 72 —	C
.. Mehul	<i>Allegro moderato</i>	♩ = 38 —	C
.. Clementi	<i>Allegro</i>	♩ = 34 —	C
.. Clementi	— — — —	♩ = 50 —	C
.. Cherubini	— — — —	♩ = 112 —	C
.. Cherubini	— — — —	♩ = 126 —	C
.. Cherubini	— — — —	♩ = 72 —	C
.. Mehul	— — — —	♩ = 96 —	C
.. Berlon	<i>Allegro molto</i>	♩ = 176 —	C
.. Spontini	<i>Presto</i>	♩ = 72 —	C
.. Spontini	— — — —	♩ = 38 —	C
.. Beethoven	— — — —	♩ = 152 —	C
.. Beethoven	— — — —	♩ = 176 —	C
.. Beethoven	— — — —	♩ = 224 —	C
.. Clementi	— — — —	♩ = 96 —	C
.. Cherubini	<i>Andantino</i>	♩ = 76 —	$\frac{3}{4}$
.. Cherubini	— — — —	♩ = 164 —	$\frac{3}{4}$
.. Cramer	<i>Moderato</i>	♩ = 62 —	$\frac{3}{4}$
.. Cramer	— — — —	♩ = 116 —	$\frac{3}{4}$
.. Cramer	<i>Allegro non tanto</i>	♩ = 131 —	$\frac{3}{4}$
.. Cramer	<i>Presto</i>	♩ = 133 —	$\frac{3}{4}$
.. Cramer	<i>Moderato</i>	♩ = 100 —	$\frac{3}{4}$
.. Cramer	— — — —	♩ = 251 —	$\frac{3}{4}$
.. Viotti	<i>Andante</i>	♩ = 52 —	$\frac{3}{4}$
.. Berlon	— — — —	♩ = 132 —	$\frac{3}{4}$
.. Nicolo	<i>Andantino</i>	♩ = 52 —	$\frac{3}{4}$
.. Catel	— — — —	♩ = 126 —	$\frac{3}{4}$
.. Paer	<i>Andante</i>	♩ = 50 —	$\frac{3}{4}$
.. Berlon	— — — —	♩ = 100 —	$\frac{3}{4}$
.. Cramer	<i>Piu tosto moderato</i>	♩ = 92 —	$\frac{3}{4}$
.. Cramer	<i>Allegro agitato</i>	♩ = 66 —	$\frac{3}{4}$
.. Paer	<i>Lento</i>	♩ = 120 —	$\frac{3}{4}$
.. Paer	<i>Andante</i>	♩ = 120 —	$\frac{3}{4}$
.. Paer	— — — —	♩ = 112 —	$\frac{3}{4}$
.. Berlon	— — — —	♩ = 300 —	$\frac{3}{4}$

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Tab. III.

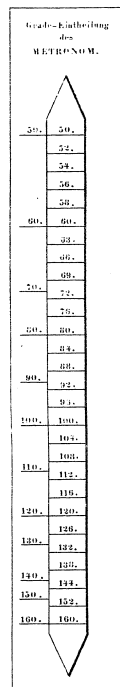


Figure 16. Hummel, *Anweisung*, 457.

that serve to express all the nuances perceptible to a truly sensitive ear.”<sup>31</sup> Unfortunately, Castil-Blaze does not provide a table matching metronome marks with tempi. Mathis Lussy, about fifty years later, offered more detailed instructions. His three main categories run from 40–72, 72–120, and 120–208 (figure 17). His system follows that of other writers, including Hummel, in letting single numbers function as transitions between categories, so that

31 “En changeant la valeur musicale des vibrations du balancier, valeur qui peut être celle d’une croche, d’une noire, d’une blanche, et même celle d’une mesure entière quelconque, il résulte une série de près de deux cents mouvements qui servent à exprimer toutes les nuances perceptibles à l’oreille la plus délicate.” Castil-Blaze, *Dictionnaire de Musique*, vol. 2, 39.

*Tableau des principaux termes de mouvements avec le nombre d'oscillations métronomiques correspondant à chacun d'eux.*

Lent . . . . .	{ Largo ou Adagio de	40 à 60	balancements par minute.
	{ Larghetto . . . . .	60 à 72	—
	{ Andante . . . . .	72 à 84	—
Modéré. . . . .	{ Andantino } . . . . .	84 à 120	—
	{ Allegretto }		
	{ Allegro . . . . .	120 à 150	—
Vite. . . . .	{ Presto . . . . .	150 à 180	—
	{ Prestissimo . . . . .	180 à 208	—

Bien entendu, nous n'avons pas la prétention d'attacher à chaque terme un nombre fixe d'oscillations.

Figure 17. Lussy's "Table of the principal tempi, with the corresponding oscillations of the metronome," with the remark, "naturally, we do not presume to assign a fixed metronome value to any particular term."

the fastest slow value, for example, is also the slowest moderate one.<sup>32</sup>

Rougnon presents a similar system (figure 18),<sup>33</sup> and we may compare the two systems in table 1.

Rougnon begins the moderate tempi at 69, Lussy at 72; but Rougnon's and Lussy's *allegro* are both 120. We cannot call this discrepancy significant. However, we might note that in the slow tempi, the differences are greater. Lussy's *andante*, for example, is significantly faster than Rougnon's: Lussy begins it at 72, which is already faster than Rougnon's upper limit of 69. Even these few examples show that there was no complete consensus about how to convert an Italian tempo mark to a metronome mark.

32 Lussy, *Musical Expression*, 161.

33 Rougnon, *Dictionnaire Musical*, 216–217.

MOUVEMENTS LENTS	MOUVEMENTS MODERES	MOUVEMENTS VIFS ET TRÈS VIFS
De } 40 à 50 } Larghissimo Grave Largo Lento molto	De } 69 à 76 } (ou 80) } Andantino	De } 120 à 144 } (ou 152) } Allegro
De } 50 à 56 } (ou 58) } Lento Larghetto. Adagio	De } 84 à 104 } (ou 108) } Allegretto	De } 152 à 176 } Allegro molto Allegro assai Presto Vivace Vivo
De } 56 (ou 58) } à 69) } Andante	De } 104 à 120 } Allegro mode- rato Allegro non troppo	De } 176 à 208 } Allegrissimo Prestissimo Vivacissimo

Figure 18. Rougnon's table from his *Dictionnaire Musical* with the three categories.

Table 1: Comparison of Lussy and Rougnon

	Lussy	Rougnon
<i>Slow tempi</i>		
Largo	40–60	40–50
Larghetto	60–72	50–56/58
Andante	72–84	56/48-69
<i>Moderate tempi</i>		
Andantino	84–120	69–76/80
Allegretto	*	84–104/108
<i>Fast tempi</i>		
Allegro	120–150	120–144
Presto	150–180	152–176
Prestissimo	180–208	176–208

\*The same as Andantino for Lussy.



Several other metronomes I studied during my research only added to the confusion. The well-known and very common Paquet metronome uses a tempo scale completely different from those of both Rougnon and Lussy, given in the following tables.

**Table 2: Examples of Paquet metronome tempo scales**

Paquet (serial no. 208 043)		Paquet (serial. nos. 185 776, 695 893, and 694 202)	
Largo	40–68	Largo	40–68
Larghetto	68–98	Larghetto	68–98
Adagio	98–124	Adagio	98–126 (124?)
Andante	124–152	Andante	126 (124?)–152
Allegro	152–184	Allegro	152–184
Presto	184–208	Presto	184–208

Paquet (serial nos. 185 776, 695 93, and 694 202)		Paquet (serial no. 766 481)	
Largo	40–68	Largo	40–68
Larghetto	68–98	Larghetto	68–98
Adagio	98–126 (124?)	Adagio	98–126
Andante	126 (124?)–152	Andante	126–152
Allegro	152–184	Allegro	152–184
Presto	184–208	Presto	184–208

Paquet (no serial no.)		“Système Maelzel” (by Wagner or Paquet?)	
Largo	40–68	Largo	40–68
Larghetto	68–100 (98?)	Larghetto	68–98
Adagio	100–126 (98–124?)	Adagio	98–124
Andante	126 (124?)–152	Andante	124–152
Allegro	152–176 (184?)	Allegro	152–184
Presto	176 (184?)–208	Presto	184–208

We find a similar scale in three Seth Thomas “Maelzel” metronomes from the United States: E 873006 and two others with illegible numbers. It seems likely that this scale was copied from Paquet.

**Table 3: Seth Thomas “Metronome de Maelzel”**

Largo	40–68
Larghetto	68–98
Adagio	98–124
Andante	124–154
Allegro	154–182
Presto	182–208

Tables 2 and 3 show a few examples of odd metronome scales: the slow Italian tempo marks are matched with quite high metronome marks, and this occurs not only in isolated instances, but quite frequently.

Later Paquet models (table 4, figure 19) have a scale of the kind we might still expect today including an extra indication for Grave:

**Table 4: Paquet portatif 1930**

Grave	40–42
Largo	44–46
Larghetto	48–50
Adagio	52–56
Andante	58–63
Andantino	66–72
Moderato	76–92
Allegretto	96–104
Allegro	108–120
Vivace	126–138
Presto	144–168
Prestissimo	176–208

From this sampling, we can be confident of only one thing: that no general consensus existed on how to match the Italian tempo marks to settings on the metronome. Still, we might note that the 1930 Paquet scale is fairly similar to Rougnon’s:

**Table 5: General ranges of early Paquet, Rougnon and Paquet 1930**

*Largo/Larghetto*

Paquet	40–98
Rougnon	40–50
Paquet 1930	40–50

*Adagio*

Paquet	98–124
Rougnon	50–58
Paquet 1930	52–56

*Andante/Andantino*

Paquet	124–152
Rougnon	58–76
Paquet 1930	58–92

*Allegretto/Allegro/Presto,*

*Prestissimo*

Paquet	152–208
Rougnon	84–208
Paquet 1930	96–208

Generally speaking, the metronome marks on the early Paquet scale relate to Rougnon's table by an approximate ratio of 2:1, while the scale of the newer Paquet metronomes is clearly much closer to Rougnon.

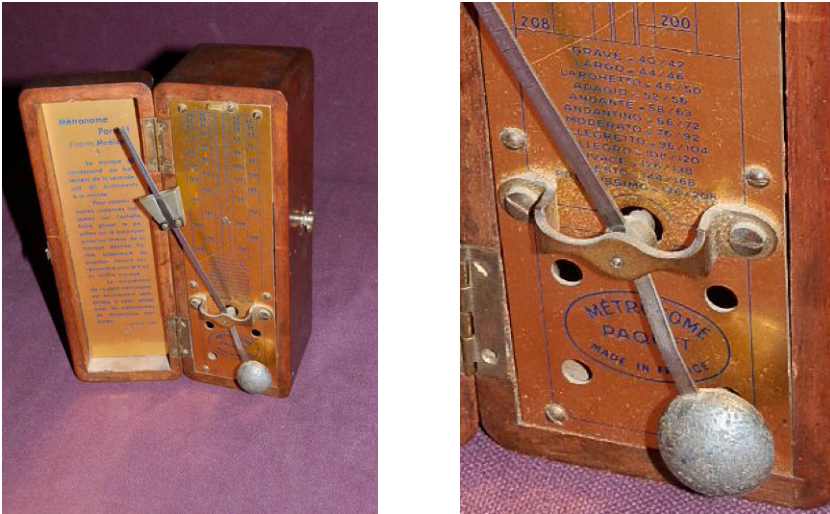


Figure 19. Paquet 1930. Private collection. Photo by the author.

### Instructions for using the metronome

On the face of it, the way to use a metronome is obvious. Anyone involved with making music knows their way around a metronome. This is at least true in the twentieth and twenty-first centuries. You adjust the hand of a dial (or an electronic display) to the desired number; for a mechanical metronome, you slide the weight to the correct position. The contraption starts to tick, flash, or move, and you begin to play. You can stop the metronome just before starting your piece, or you can let it tick or flash while you practice or make a recording – but only very rarely during a concert.

In this section, I present several sets of metronome instructions from the nineteenth century.<sup>34</sup> One early source for both Germany and France is Hummel. The German version of Hummel’s instructions is reproduced here in figure 20. In this text, Hummel views the metronome as a device that can help musicians set a tempo, follow a tempo mark, and practice maintaining a regular tempo. He certainly does not suggest that the metronome establishes a compulsory beat to which a musician should slavishly adhere. Quite the opposite: “there are still many,” he cautions, “who, when using the metronome, believe incorrectly that it was made with the intent that one should follow its

34 I have not been able to locate a copy of one of these sources: Sigismund Neukomm, *Anleitung, sich des musikalischen Chronometers zu bedienen* (Vienna, 1815).

even pace through all the parts of a piece, allowing no rein to sentiment.”<sup>35</sup>

Castil-Blaze provides more objective instructions. He explains that tempo is designated using both a number and a note value. The number indicates where the weight of the metronome must be positioned. The note value indicates the duration of one “oscillation” of the metronome, in musical time. In music, the tempo of a piece varies in direct proportion to the length of the pendulum, but in inverse proportion to the note value that matches the pendulum’s oscillation.<sup>36</sup> Indicating a number and a note value at the beginning of the piece is sufficient to give the tempo.

Rougnon, meanwhile, offers the following instructions of critical importance:

One must strictly refrain from using the metronome throughout the performance of a piece of music.

Any performer who resorts to this use of the metronome will only arrive at an interpretation devoid of any style, feeling, or warmth of expression, as a result of the monotonous, mechanical precision that the regular beating of the metronome’s pendulum would impart to his playing.

In exceptional cases, one may use the metronome to good advantage: as in executing certain exercises or technical études, which require regular, precise playing, and have nothing to do with the expressive style.

35 Hummel, *Anweisung zum Piano-Forte-Spiel*, 455–6.

36 “Beaucoup de morceaux de musique portent maintenant la désignation du degré du métronome, qui correspond au degré de mouvement que l’auteur a voulu lui donner. Cette désignation se fait au moyen d’un numéro et d’une note. Le numéro marque le point sur lequel on doit arrêter le contre-poids sur l’échelle du métronome, la note indique la valeur d’une vibration. C’est ce qu’on appelle la marque métronomique.

Dans la musique, le mouvement indiqué par le métronome est en raison directe de la longueur du balancier; et en raison inverse de la valeur donnée à ses oscillations. Ainsi, quand un compositeur voudra indiquer le degré de vitesse d’un morceau de musique par le moyen du métronome, il saura que le mouvement le plus lent sera celui indiqué par le numéro 50 de l’échelle, si chaque vibration a la valeur d’une croche. Le mouvement sera d’autant plus accéléré, qu’on aura pris un numéro plus élevé, et qu’on aura donné une valeur plus forte à chaque vibration. Lorsqu’on veut exécuter un morceau de musique dont le mouvement est indiqué par une croche et le numéro 50, il suffit de placer le contre-poids sur le numéro 50, et de donner à chaque vibration la valeur d’une croche. Il est clair qu’il en doit être de même pour tous les degrés de l’échelle; et les différentes valeurs que peut avoir une vibration.” Castil-Blaze, *Dictionnaire de Musique*, vol. 2, 39–40.

In short: the metronome should first and foremost be a tool for indicating tempo. One ought to avoid using it for any other purpose.<sup>37</sup>

Hirn expresses the same opinion, noting that “*speaking* metronomes [les *métronomes parlants*] are the only ones that have been used to date, and this will probably continue to be the case... As mentioned, this tool should not be used to beat time during the performance of a piece, but only to indicate the tempo in advance.”<sup>38</sup>

None of these instructions, however, have anything very concrete to say about the way the *métronome normal* was used. It seems worth the effort, therefore, to do some practical experiments with surviving metronomes. The *métronome normal* by Roques in Brussels is not in working order; missing parts include a weight, the strings, and the frame. An attempt to reconstruct the missing parts, even if it is a rough one, can give us an idea of how the metronome is meant to work. See video 1 (and Appendix A: Notes on the Recordings).

Provided the weight is heavy enough, the pendulum keeps moving for five to six minutes at a time. This is long enough to be useful when studying a piece or passage: the player can glance at the metronome at any time to verify the basic tempo. Nonetheless, a metronome of this kind is chiefly used only to set the starting tempo. During a performance, the player is left free to adapt the tempo to the expressive requirements of the music.

We might take special note of a phenomenon that occurs when setting the metronome. When standing directly in front of the pendulum after setting it in motion, there is a strong inclination to interpret two movements of the pendulum – its back and forth – as one beat. This effect is less pronounced when viewing the pendulum from an angle – but it is necessary to stand in front of the metronome to read the scale and set the weight correctly. Considering the fact that the restricted scale of the metronome does sometimes make it necessary to count two or four movements of the pendulum as one, we can understand that it would have been easy to make mistakes about tempo on that order of magnitude. The same observations apply not only to Roques’ metronome, of course, but also to all pendulum metronomes without a clockwork mechanism.

37 Rougnon, *Dictionnaire Musical*, 224.

38 Hirn, *Construction et emploi du métronome*, 6.

**Fünftes Kapitel.**  
**Über Nutzen, Gebrauch und Anwendung**  
**des Mälzelschen Metronom's (Zeitmessers.)**

§ 1.

Diese Erfindung neuerer Zeit ist eine der nützlichsten im Gebiete der Musik, und erfüllt ihren Zweck vollkommen;\*) nur giebt es noch Viele, die bei der Anwendung des Metronom's irrig meinen, er sei dazu bestimmt, dass man seinem gleichmässigen Gange durch alle Theile des ganzen Stück's hindurch folgen müsse, ohne dem Gefühle dabei Freiheit zu lassen.

§ 2.

Für die Komponisten hat der Metronom den grossen Nutzen, dass ihre Kompositionen, die sie nach den Graden des Metronom's bezeichnen, in allen Ländern im gleichen Tempo ausgeführt werden; und dass nicht, wie sonst, ohneachtet der sorgfältigst gewählten musikalischen Kunstwörter, der Effekt ihrer Werke durch Übertreibung oder Schläfrigkeit des Zeitmasses verloren geht. Die langen Überschriften werden dadurch entbehrlich, indem das ganze Zeitsystem in drei Hauptbewegungen: die *langsame*, die *mässige* und die *geschwinde* getheilt wird, und somit höchst selten nur ein, den besondern, in einem Stück herrschenden Affect andeutendes Wort beizufügen nöthig ist.

§ 3.

Aus der von Mälzel selbst abgefassten Tabelle N<sup>o</sup> 1. sieht man, dass im langsamsten Tempo die zur Gradebezeichnung zu wählende kürzeste Note nicht unter einer Aechtel-Note ist; im mässigen nicht unter einer Viertel-Note; und im schnellsten nicht unter einer halben Note; aus Tabelle N<sup>o</sup> 2. wie verschiedenartig früher die Ansichten der Autoren über die Bezeichnung der Bewegung ihrer Werke durch dieselben Worte waren, und wie sie sich selbst oft darin widersprochen haben; welche Übelstände nun wegfallen. In N<sup>o</sup> 3. sieht man die Grade-Eintheilung des Metronom's abgebildet.

§ 4.

Spieler und Liebhaber erfahren mithin durch den Metronom das rechte, vom Autor bestimmte

\*) Es wäre sehr zu wünschen, dass jeder Komponist und Künstler im Besitz eines Metronom's wäre; das jeder seine Werke sorgfältig darnach bezeichnen, dieser das Tempo des vorzutragenden Stück's darnach aufasse, und auch, dies Gute zu fördern, die Lehrer ihre Schüler allgemeiner damit versorgen. Dies würde hoffentlich veranlassen, einschlagende Metronome zu solchen Preisen zu liefern, dass selbst der wenig bemittelte Kantor auf dem Lande im Stande wäre, sich einen solchen anzuschaffen.

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Tempo: sie sollen aber keineswegs den einzelnen Schlägen desselben knechtisch folgen, und dadurch an einem, zuweilen nöthigen Anhalten oder Vordringen gehindert werden. Oft habe ich indessen Liebhaber, sogar Künstler gefunden, denen übermässiges Eilen Gewohnheit war: diesen ist als das Beste anzupfehlen, sich einige Zeit streng nach dem Metronom zu üben, um nach und nach die gehörige Ruhe zu erlangen.

§ 5.

Auch für Anfänger ist der Metronom von Nutzen, indem sie, stets streng an den Takt gebunden, ein richtigeres Gefühl für denselben erhalten; doch versteht sich, dass der Schüler bereits seine kleinen Stücke folgerecht spielen muss. Das Spielen nach dem Metronom ist ihm auch besonders nützlich in den Übungsstunden während der Abwesenheit des Lehrers. Er stelle den Metronom neben sich, höre genau auf seinen Gang, richte zuweilen das Auge auf dessen Bewegung, und trachte, seinen Schlägen ganz getreu im Takte zu folgen.

Bei einem solchen Wegweiser, der zu Auge und Ohr spricht, müsste der Schüler sehr von der Natur vernachlässigt sein, wenn er es nicht im Kurzen dahin brächte, richtig im Tempo zu spielen.

§ 6.

Noch bemerke ich, dass das Spiel nicht zugleich mit dem Metronom anfangen muss: man höre erst kurze Zeit auf dessen Gang, ehe man zu spielen anfängt, um die Bewegung des Stück's gehörig aufzufassen; denn das Ohr wird im Anfang leicht durch die Schläge des Metronom's getäuscht.

Diese Bemerkung gilt ebenfalls für den Komponisten, wenn er den Grad des Zeitmasses zur Bezeichnung eines Werkes aufsucht.

Man trage übrigens Sorge, dass der Metronom nicht ungleich oder schief, sondern immer fest und gerade stehe.

Figure 20. From Hummel's *Anweisung zum Piano-Forte-Spiel*, 455–6 (cropped), <https://mdz-nbn-resolving.de/details:bsb10497362>.

Obviously, the use of the metronome is related to the perception of meter, and a number of excellent studies have been published about “metric” thinking. The practical experiments described here indicate that until late in the nineteenth century, we must use caution when matching metronome marks to specific pieces of music. I will examine this point in more detail in the case studies below. In the meantime, let us return to one of the older sources: Castil-Blaze.

Castil-Blaze’s entry on “beating the measure” (figure 21) can be summarized as follows: beats may be of very different values, and it falls to the performer to decide what the the beat is worth. One may divide the measure into more or fewer beats, depending upon the note values that occur, the Italian term at the head of the piece, and, above all, the character of the music. The French, moreover, beat the measure differently than the Italians do.<sup>39</sup> This last statement is not explained further, although it surely influences the perception of the rhythmic accents. In this context, it is interesting to note Castil-Blaze’s definition of the “élément métrique,” or subdivision of a beat:

Élément métrique. A part of the measure that results from dividing a beat into two or three notes of the same value: consequently, these elements in a 2/2 measure are the fourth parts of a whole note, or rather, quarter notes; in a 2/4 measure, they are the eighth parts, or eighth notes. The Germans call these *Taktglieder*, or ‘members’ of a measure.<sup>40</sup>

In other words, the principle of the metric hierarchy is still fully operative here. In the 2/2 measure – *alla breve* or cut time – the counting unit is still the quarter note; similarly, in the 2/4 time signature that is mentioned, the counting unit is the eighth note. We can extrapolate the principle to other time signatures, so usually the metronome mark given will need to be halved.

The explanation provided by Rougnon (figure 22) is somehow confusing. On the one hand, Rougnon says that each oscillation of the pendulum produces one tick-tock. In his first example, he interprets the notation ♩ = 160 as one quarter note being equivalent to 160. But he also says that “the

39 Castil-Blaze, *Dictionnaire de Musique*, vol. 1, 63–4.

40 Castil-Blaze, *Dictionnaire de Musique*, vol. 1, 213.



duration of a note corresponds to one oscillation of the pendulum”; in other words, 160 is the time that passes between each oscillation. This explanation both helps us to understand the odd Paquet scales and supports the theory of a halving of certain metronome marks. Specifically, Rougnon says:

The numbers on the white strip behind the pendulum indicate the number of oscillations that it executes during the space of one minute. Thus, 44, 60, 120, etc., etc., indicate that if the moveable weight is placed opposite one of these numbers, this pendulum makes 44, 60, 120 oscillations per minute, which are perceptible to the ear by the tick-tock beats that each oscillation produces.

He goes on to say that the composer indicates the tempo of a piece by means of a note value and an accompanying number. The number indicates where to position the weight on the pendulum to achieve the correct number of oscillations. The note value will correspond to the length of time it takes the pendulum to complete one oscillation.

The time that elapses between each oscillation of the pendulum gives the exact duration, within a measure, of the note value that the composer has indicated. Thus, the metronome indication ♩ = 50 means that if the weight is positioned at the number 50, each oscillation (or tick-tock) will equal the duration of a quarter note, and will indicate the duration of that quarter note within the measure.<sup>41</sup>

### Utility of the metronome

Opinions about the usefulness of the new invention diverged. Among the many sources attesting to this fact is a letter of March 10, 1824 from Carl Maria von Weber to Heinrich Aloys Präger. The letter was published in the *Berliner allgemeine musikalische Zeitung* on July 11, 1827.<sup>42</sup> I cite it here because a French translation appeared in 1835; thus, we know that the letter did not pass unobserved in France.<sup>43</sup>

41 Rougnon, *Dictionnaire Musical*, 209.

42 *Berliner allgemeine musikalische Zeitung* 4, no. 28 (July 11, 1827), 217–19, <https://digitale-sammlungen.de/view/bsb10528066?page=234,235>

43 *Revue et Gazette Musicale de Paris* 2, no. 7 (1835): 53–55, <https://archive.org/details/gazettemusicaled18351pari/page/53/mode/1up>.

**BATTRE LA MESURE.** C'est en marquer les temps par des mouvemens, de la main ou du pied, qui en règlent la durée, et par lesquels toutes les mesures semblables sont rendues parfaitement égales, en valeur chronique ou en temps, dans l'exécution.

Il y a des mesures qui ne se battent qu'à un temps (1), d'autres à deux, à trois ou à quatre, ce qui est le plus grand nombre de temps marqués que puisse renfermer une mesure : encore une mesure à quatre temps peut-elle toujours se résoudre en deux mesures à deux temps. Dans toutes ces différentes mesures, le temps frappé est toujours sur la note qui suit la barre immédiatement ; le temps levé est toujours celui qui la précède.

Le degré de lenteur ou de vitesse qu'on donne à la mesure dépend de plusieurs choses : 1° de la valeur des notes qui composent la mesure ; 2° du mouvement indiqué par le mot qu'on trouve à la tête de l'air ; *lento*, *andante*, *allegro*, *presto*, etc. : tous ces mots indiquent autant de modifications dans le mouvement d'une même sorte de mesure : 3° enfin, du caractère de l'air même qui, s'il est bien fait, en fera certainement sentir le vrai mouvement.

Les Français ne *battent* pas la *mesure* comme les Italiens. Ceux-ci, dans la mesure à quatre temps, frappent successivement les deux premiers temps et lèvent les deux autres ; ils frappent aussi les deux premiers

(1) Il n'existe point de mesure à un temps ; mais, comme dans le *presto* à trois temps on ne peut en marquer qu'un, la *mesure* des menuets de symphonie ne se *bat* réellement qu'à un temps, quoiqu'elle en ait trois.

dans la mesure à trois temps, et lèvent le troisième. Les Français ne frappent jamais que le premier temps, marquent les autres, savoir : pour la mesure à quatre temps, en portant la main à gauche, à droite et en haut, et, dans la mesure à trois temps, en portant la main à droite et en haut, pour retomber ensuite sur le temps frappé.

Figure 21. From Castil-Blaze, *Dictionnaire de Musique*, vol. 1, 63-4

The key points of the letter may be summarized as follows: the way a singer interprets any role depends very much upon his or her individual characteristics, and the composer is aware of this. Two different interpretations may be equally acceptable to the composer, provided that each, in its different way, respects the performance instructions. It is the task of the

lations de ce balancier sont lentes. Les chiffres placés sur la bande blanche qui se trouve derrière le balancier indiquent le nombre d'oscillations qu'il exécute dans *une minute*. Ainsi, 44, 60, 120, etc. etc., indiquent que si le poids mobile fixé au balancier est placé vis-à-vis d'un de ces numéros, ce balancier donne 44, 60, 120 oscillations par minute perceptibles pour l'oreille par les coups de tic-tac que produit chaque oscillation.

### § III. — DE L'EMPLOI DU MÉTRONOME

Pour marquer le mouvement d'un morceau, le compositeur inscrit en tête de ce morceau une figure de note quelconque (blanche, noire, croche, etc.) à côté de laquelle il place un numéro du métronome. Entre la figure de note et le numéro on met deux petites barres horizontales (1). Exemple :

$$\overset{|}{\underset{|}{\bullet}} = 160; \overset{|}{\underset{|}{\text{J}}} = 54,$$

ce qui veut dire : noire égale 160 ; blanche égale 54.

La figure de note inscrite a une durée égale à celle d'une oscillation du balancier. Le numéro inscrit indique la hauteur à laquelle le petit poids mobile doit être fixé, de manière à ce que le balancier exécute par minute le nombre d'oscillations déterminé par ce numéro.

L'exécutant, pour se conformer aux indications métronomiques du compositeur, fera glisser le poids mobile le long du balancier jusqu'au numéro indiqué et le fixera au niveau de ce numéro. L'espace de temps s'écoulant entre chaque oscillation du balancier, donnera la durée exacte, dans une mesure, de la valeur de note indiquée par l'auteur. Ainsi l'indication métronomique suivante

$$\overset{|}{\underset{|}{\text{J}}} = 50$$

indique que le poids mobile étant fixé vis-à-vis ce numéro 50, chaque oscillation (ou tic-tac) du balancier équivaudra à une noire et donnera la durée de cette noire dans la mesure. Plusieurs exemples vont faire comprendre le mécanisme de l'instrument.

*1<sup>er</sup> Exemple :* Un morceau dans la mesure à *trois-quatre* a l'indication métronomique suivante :

$$\overset{|}{\underset{|}{\bullet}} = 120.$$

On placera le poids mobile du balancier au niveau du numéro 120 placé sur l'échelle, et chaque oscillation indiquera la durée d'une noire dans une mesure à trois-quatre, c'est-à-dire d'un temps de cha-

(1) Plusieurs compositeurs inscrivent le numéro avant la figure de note. Quelle que soit la manière de procéder, le résultat est identiquement semblable.

Figure 22. From Rougnon, *Dictionnaire Musical*, 209.

conductor to keep things under control and stop the singer from getting carried away. On the other hand, it is better to omit a piece of music entirely than to allow it to be performed like a “solfeggio exercise.”

Furthermore, it is very difficult to make the expressivity of singers and instruments coincide, since by nature they are entirely dissimilar. Singing has a kind of sway in the beat that can best be compared to the waves of a river. Instruments, especially strings, divide the measure in a clear-cut way, like the movements of a pendulum. The beat of a piece must never resemble a “mill hammer” that dictates the movement of the music. On the other hand, the habit some singers have of abandoning the beat arbitrarily is absurd. Speeding up or slowing down within a passage should be done over long phrases, and only if the musical content demands it. No notation exists for these small nuances of rhythm, and if the performer cannot sense them, the metronome can offer no help.

It was generally agreed that the metronome should never be a “tyrant.” We read the same thing in Hummel. The device was often considered an obstacle to expressive playing. We find a good summary in Castil-Blaze:

...it is feeling that determines the tempo of a piece of music. Because everybody feels differently, one might imagine that this universal regulator [the metronome] would guide everyone toward the tempo that the composer wanted. Not at all: a lively person will naturally play faster, a phlegmatic one will play slower, without thinking about it, and even if both initially adjust themselves to the laws of the metronome, they will relapse, in spite of themselves, into their own way of envisioning and performing the music.

The metronome, moreover, can only be used when rehearsing, and the impression it makes is too fleeting to withstand all the forces that unite to destroy it. Generally speaking, the provincial orchestra and theater conductors take their tempi too fast, and they rarely conform to the composer’s intentions. There is no doubt this is a mistake, although an involuntary one...<sup>44</sup>

44 “Le métronome est une invention précieuse pour faire connaître dans tous les pays le degré de vitesse qu’un auteur a voulu donner à ses compositions. L’expérience a prouvé cependant que cet instrument devait être rangé plutôt parmi les objets que l’on recherche par curiosité que parmi ceux dont l’utilité est reconnue. C’est le sentiment qui fait trouver le mouvement de tel ou tel morceau de musique. On dira peut-être que chacun ayant une manière différente de sentir, ce régulateur universel doit amener tout le monde au mouvement adopté par l’auteur. Point du tout: entraîné par

Finally, Castil-Blaze sees a future for the metronome in its utility for composers as a point of reference to bring consistency to their compositions. He says that it is necessary for the composer to refer to a fixed tempo from time to time to guarantee that a uniform tempo is preserved throughout the piece:

The metronome...is very useful to the composer for reminding him exactly of the tempo of a piece of music conceived and written in fragments at different times. With its help he can preserve a uniform tempo by rejecting those phrases and features whose pace is too fast or too slow to fit with what was composed earlier.<sup>45</sup>

The metronome is a tool for setting a basic tempo, both for the player and the composer. With a few specific exceptions, we find no historical sources that advocate the practice of playing along with the metronome. On the contrary, all of the sources warn against playing too mechanically and without rhythmic nuance.

The historical framing of the metronome as a pendulum supports the conjecture that meters and metronome marks were sometimes – in effect – divided in half. To put it another way: in some cases, the metronome mark refers to the complete, back-and-forth oscillation of the pendulum. As a result, in those cases, historical metronome marks must be halved, if they are to be used in the way metronome marks are used today. This applies first and foremost to soundless metronomes, but cannot be excluded for ticking metronomes.

la force du naturel, l'homme vif pressera les mouvements, le flegmatique les ralentira sans s'en douter, et retombera malgré lui dans sa manière de concevoir et d'exécuter la musique, quoique ils se soient l'un et l'autre conformés d'abord aux lois du métronome. Ce n'est qu'aux répétitions que l'on peut le consulter, et l'impression qu'il laisse est trop fugitive pour résister aux causes qui se réunissent pour la détruire. En général, les chefs d'orchestre des théâtres de province donnent trop de prestesse aux mouvements, et se conforment rarement, sur ce point, aux intentions du compositeur. C'est une faute sans doute, mais elle est involontaire." Castil-Blaze, *Dictionnaire de Musique*, vol. 2, 40.

<sup>45</sup> "Le métronome est un instrument de cabinet très utile au compositeur, pour lui rappeler au besoin, et avec exactitude, le mouvement d'un morceau de musique conçu et écrit par fragments à des époques différentes. Par ce moyen il pourra conserver l'unité de mouvement, en rejetant des périodes et des traits dont la marche trop lente ou trop rapide, ne concorderait pas avec ce qui a été composé précédemment." Castil-Blaze, *Dictionnaire de Musique*, vol. 2, 41. To lend weight to his reasoning, Castil-Blaze also provides some examples of compositions where setting a single performance tempo leads to impossible situations, due to precisely such a lack of consistency by the composer. He mentions the Overture of Steibelt's *Romeo & Juliette*, and Della Maria's *l'Oncle Valet*.

### *Metronome marks in Lefébure-Wely's Meditaciones religiosas*

Louis James Alfred Lefébure-Wely (1817–1869), who began his career as a famous child prodigy at his father's church, The Church of Saint-Roch and ended it as titular organist of Saint Sulpice, was a leading improviser and composer of his time. One extremely valuable source for the interpretation of metronome marks can be found in his *Meditaciones religiosas*, op. 122. Each of these pieces has both an MM indication at the beginning and a precise total duration at the end. As far as I know this is a unique case in a printed edition. It remains an open question whether Lefébure-Wely wanted to establish a new, modern way of publishing pieces for liturgical use, or whether he was just proud of his new and accurate chronometer. Our conclusions would be the same in either case.

Let us look at an overview of the different movements. Table 6 shows the Italian tempo mark, the metronome mark, the meter, the number of measures, the calculated duration of the piece in minutes and seconds, and in the last column the actual duration, as noted by the composer. Lefébure-Wely always uses the quarter note as a reference for his metronome marks if nothing else is indicated.

**Table 6: Overview of tempo and meter in Lefébure-Wely's *Meditaciones religiosas*, op. 122**

	MM	Meter	Measures	Calc. dur.	Noted dur.
1. Andante	76	3/4	59	2'22	2'30
2. Allegro	100	C	151	6'03	3'25
3. Cantabile	88	C	42	1'54	2'15
4. Marche	120	2/4	226	3'46	4'
5. Andante	63	9/8	44	2'15	2'45
6. Moderato	120	C*	70	3'00	3'15
7. Andante	100	6/4	36	2'10	2'40
8. Allegro	144**	6/8	154	2'08	2'15
9. Maestoso	60	C	151	10'	8'
10.1 Largo	72	C	24	1'20	1'
10.2 Andante	76	C	53	2'56	3'

\*alla breve

\*\*dotted quarter note

Our most basic conclusion is that Lefébure-Wely checked the duration of his music in actual performances. The total time is not merely the result of a calculation based upon adding the number of measures played at a given metronome mark – i.e., at a certain speed. In all except two pieces (9. and 10/1), it is a little longer. The obvious explanation is the presence in the score of written-in directions for *ritardandi*, *rallentandi*, and so on. We can also make a few more specific observations on each piece:

1. “Rit” is written out three times in a total of eleven measures, in addition to a “retenez.”
2. The MM indication refers to the meter of the piece, which is actually two beats per measure, not four. Half of the calculated duration, then, is a little over three minutes, and a “plus lent” is added two times.
3. “Retardez” appears in four measures.
4. Contains non-notated obbligato *rallentandi*.
5. There are numerous *ritardandi* and one “animez,” but the character of the piece in general demands a great deal of “ad libitum.”
6. “Retardez” in four measures, plus a fermata.
7. Numerous *ritardandi* in six measures, with “lent” at the end.
8. No notated *ritardandi*.
9. “Retardez” in a total of three measures; it seems natural to take the central part, with a singing melody, *poco piu mosso*, and to return to the basic tempo when the main theme returns.
- 10.1. Twenty seconds shorter than the calculated duration, with a *ritardando*.
- 10.2. Four seconds longer, although there are notated *ritardandi* in five different measures.

Metronome marks in Lefébure-Wely’s other pieces, especially the harmonium pieces, reveal nothing of particular interest here. We may assume that the indications are correct. The fast tempos sometimes seem a bit fast, and the slower ones occasionally a little slow, but we never receive the impression that Lefébure-Wely interpreted the metronome beat in any other way than our current practice.

### *Sigismund Neukomm*

The 1999 Sabatier and Bertrand-Couvreur edition<sup>46</sup> of Neukomm's 25 *Grandes Études pour Orgue* publishes the pieces according to the manuscript in the Bibliothèque Nationale de France.<sup>47</sup> An undated nineteenth-century edition also contains the pieces in a different order.<sup>48</sup> The order of the manuscript is chronological. Eleven of the pieces provide a metronome mark and the duration in minutes and seconds.<sup>49</sup> These pieces are an exceptional resource for the wider discussion about the interpretation of metronome marks, since the dates of composition are contained within a timespan of a single year: from June 1832 to July 1833. Table 7, like table 6, shows an overview of the information from the source and compares the noted duration from Neukomm with a calculated duration based on the number of measures and the metronome markings.

**Table 7: Calculated and notated durations in Neukomm's**

*25 Grandes Études pour Orgue*

	Calc. dur.	Noted dur.
1. Maestoso	5'23	3'30
2. Andantino	4'39	4
3. Maestoso	8'30	8
4. Andantino	5'06	5
5. Vivace	5'00	4'30
6.		no dur. given
7. Andantino	4'59	4
8. Andante	4'33	3'30
9. Maestoso	6'45	6
10. Andantino	5'50	5'30
11. Adagio	6'44	7
12–15		no dur. given
16. Maestoso	6'40	4
17–25		no dur. given

46 Sigismund [sic] Neukomm, *25 Grandes Études pour Orgue*, ed. François Sabatier and Nanon Bertrand-Couvreur, (Paris: Publimuses, 1999).

47 BnF Ms 8038.

48 *Twenty-five Original Voluntaries, or Grand Studies, for the Organ, by The Chevalier Sigismund Neukomm* (London : Cramer, Addison & Beale, n.d.).

49 There is a strange coincidence here: from Étude No.12, the pieces have an obligatory pedal part, and no timings.



There can be only one conclusion: Neukomm uses the metronome in a mathematical, modern way, there is no doubt in any case.

Almost all durations given by Neukomm are shorter than my calculated duration of the pieces based on the number of bars and the given metronome marking, except for the 11. Adagio. Sometimes, the deviation is quite remarkable. In the Etude No.1, the deviation is ca 60%, and in No. 8 it is ca 50%. These don't give a strong reason to doubt the calculated duration of the metronome marks. The deviation in No. 16 Maestoso, however, is striking: the calculated duration is almost 70% longer than the duration Neukomm writes at the end of the piece. The piece is a straight-forward composition, there are no passages that allow much freedom. The metronome mark of 92 for the eighth note feels indeed very slow and unnatural; when played at 120 the music is totally convincing and the duration 4 min. 30 sec., is close to Neukomm's.

I studied the pieces myself, using the metronome as a reference to set the tempo before starting to play. Exactly the same thing happened; I always played a bit faster. In some cases, I even got exactly the same result, but this was obviously only a single experiment. In any case, the durations by Neukomm give us convincing information for an "early" time period: the metronome is used in the modern mathematical way.

Neukomm also gives us an interesting notation of the metronome mark for 6/8 meter in his Sigismond Neukomm, *37 Morceaux pour l'Orgue Expressif qui pourront servir également pour l'Orgue ordinaire ou pour le Piano-Forté*, Nicou-Choron & Canaux, Paris (from the mid-1830s), printed in three volumes.

In Volume Two:<sup>50</sup>

No. 2.

Tempo indication:	Andantino
Metronome marking:	♩ = 116 <sup>51</sup>
Fastest note values:	sixteenth notes

No. 3.

Tempo indication:	Allegretto
Metronome marking:	♩ = 152
Fastest note values:	mostly eighth notes

50 There are no MM marks in Volume One.

51 The MM is given first: MM = Note value.

In Volume Three:

No. 2

Tempo indication:	Andante
Metronome marking:	♩ = 108
Meter:	2/4
Fastest note value:	sixteenth notes

Compare with no. 12 where the fastest note value is eighths.

No. 4.

Tempo indication:	Allegretto
Metronome marking:	♩ = 72
Fastest note value	sixteenth notes with some sixteenth-note triplets

No. 7

Tempo indication:	Allegretto
Metronome marking:	♩ = 104
Meter:	2/4
Fastest note value:	sixteenth-note triplets and thirty-second-note upbeats

Is this a mistake in the print? The notated marking gives a Presto effect. Eighth note equals 104 would make more sense for an Allegretto.

No. 11

Tempo indication:	Allegretto
Metronome marking:	♩ = 144
Fastest note value	sixteenth notes with some sixteenth-note triplets

No. 12

Tempo indication:	Andante
Metronome marking:	♩ = 104
Fastest note value:	eighth notes

Mistakes also occur in the editions. His symphony for orchestra, in his own arrangement “pour piano et orgue expressif ou harmonium” published posthumously in 1859, only shows a few mistakes: occasional quarter notes instead of eighth notes, for instance.<sup>52</sup> But those situations are clearly print errors. On the other hand, the fast tempi are really fast, and almost impossible to play on a harmonium. This may be explained by the fact that the *Sinfonie* was originally written for orchestra.

### *Georg Lickl*

An unexpected source is Lickl’s guide to learning to play the harmonium, which he calls “Physharmonica.”<sup>53</sup> In preparatory exercises Lickl indicates how the pedals are pressed down by the feet. He shows the moving of the pedals with a sign under the system and the tempo is indicated by an Italian term and a metronome mark (music example 2).

Trying out the pedaling on a *physharmonika* / *orgue expressif* has the remarkable result that the time it takes to press down the pedals coincides with the metronome mark.<sup>54</sup> The length of the downward movement is precisely what is possible at the indicated tempo. When applying the tick-tock interpretation, the pedal movement comes to an end long before the sign in the score.

52 *Symphonie à grand orchestre, composée et arrangée pour piano et orgue expressif ou harmonium par le Chevalier Sigismond Neukomm, oeuvre posthume* (Paris: Richault, 1859) <https://gallica.bnf.fr/ark:/12148/btv1b52000684b>.

53 C. Georg Lickl, *Theoretisch-Practische Anleitung zur Kenntniss und Behandlung der Phys=Harmonica; mit erläuternden Beispielen und fortschreitenden Übungen* (Wien: Diabelli, 1834) <http://resolver.staatsbibliothek-berlin.de/SBB00003AF500000000>.

54 I made the experiment on a Müller *Orgue Expressif de Voyage* from the 1840s. Although made in Paris, the instrument works like an Austrian *Physharmonika*. It has two typical small pedals and the feeder bellows are relatively small because the case is narrow. Playing this *Orgue Expressif* feels exactly like playing a *Deutschmann Physharmonika*. It is an interesting coincidence that Neukomm owned a Müller *Orgue Expressif de Voyage*.



present an entirely different picture. These works are the *Four Organ Pieces in the Free Style* and the *Trois Sonates*, all published in England.<sup>56</sup> To apply the notated metronome marks consistently in these pieces verges on the impossible. It is technically challenging, musically unsatisfactory, and the subjective experience of the tempo can be quite at odds with the Italian tempo notations at the heads of the pieces. In any case, the player will be forced to apply the markings very flexibly in order to play certain passages at all. As a result, most performers try to come as close to the metronome markings as they can, but with no real guidance beyond their own intuition. Unsurprisingly, newer editions usually omit the metronome markings or adjust them to something more technically feasible. Given this situation, I think it is important to take a closer look at Lemmens's metronome marks, considering each piece individually.

In the discussion below, I provide the following information for each piece, in this order: Italian tempo indication, metronome mark, and meter. For some pieces I also give the average fastest note values and the calculated total duration. "One-tick" durations are calculated by reading the metronome markings in the modern manner: the indicated note value equals one beat of the metronome or pendulum. "Two-tick" durations are calculated by letting the indicated note value equal *two* beats of the metronome.<sup>57</sup>

Jacques Lemmens, *Four Organ Pieces in the Free Style*, 1866<sup>58</sup>

**Piece No. 1: Allegretto in B-flat Major (music exmple 3)**

Tempo indication:	<i>Allegretto</i>
Metronome marking:	Met: <sup>59</sup> ♩ = 152
Meter:	3/4
Fastest note values:	eighth-note triplets
One-tick:	ca. 4 mins.
Two-tick:	ca. 8 mins. at ♩ = 152

<sup>56</sup> Lemmens's *École d'Orgue*, which was published on the Continent, contains no metronome markings at all.

<sup>57</sup> The term "two-tick" is used here in preference to "metrical" or other similar terms (the concept *tictac* is known from France in this period). The term "metrical" is reserved for another use. See Instructions for using the metronome on page 36f.

<sup>58</sup> Jacques Lemmens, *Four Organ Pieces in the Free Style* (London: Novello & Co., 1866) <https://gallica.bnf.fr/ark:/12148/bpt6k11795493>.

<sup>59</sup> In this section, I have reproduced the abbreviation for metronome exactly from the sources, which include "M.M[.]", "Met." and "Met:".

If we take the quarter note as the counting unit, the piece seems very fast, almost like a *prestissimo*. It seems we can reasonably exclude this interpretation. If we use the eighth note as the counting unit instead, the tempo might feel slow at first for an *allegretto*. This is especially true if we try the one-tick tempo first, whereas if we start straightaway with ♩ = 152 we avoid that effect. Either way, if we do choose to use the two-tick interpretation, the initial sluggish sensation subsides over the course of the piece, a point I will return to at the end of this section.

**Piece No. 2: Christmas Offertorium**

*Chorus of Shepherds* (music example 4)

Tempo indication:	<i>Allegretto Maestoso</i>
Metronome marking:	Met: ♩ = 120
Meter:	C
Fastest note values:	quarters with eighth-note upbeats
One-tick:	ca. 2 mins. at ♩ = 120

Here, the metronomization and the meter both suggest the quarter note as the counting unit. No discussion seems necessary: the metronome marking applies to the quarter note.

*Gloria in Excelsis Deo*

Tempo indication:	<i>Andante</i>
Metronome marking:	[none]
Meter:	C
Fastest note values:	eighth notes
One-tick:	n/a

*Pastorale* (music example 5)

Tempo indication:	<i>Animato</i>
Metronome marking:	Met: ♩ = 104
Meter:	6/8
Fastest note values:	eighth notes
One-tick:	2 mins. 30 secs.

Music example 3. Lemmens, Piece No. 1: Allegretto, *Four Organ Pieces in the Free Style*, 1.

The image shows a handwritten musical score for 'Allegretto' by J. Lemmens. The score is written on three systems of staves, each with a treble and bass clef. The first system is labeled 'N<sup>o</sup> 1.' and 'Allegretto. Ma: ♩ = 152.' It includes parts for 'Great. Flute 5', 'Ped Soft 16.', and 'Great.' The second system includes parts for 'Swell Oboe.', 'Great.', and 'Swell.' The third system includes parts for 'Great.' and 'cresc:'. The score is marked with '91' in the top left, 'G. H. N<sup>o</sup> 1' in a stamp at the top center, and 'J. LEMMENS.' at the top right. The number '9538' is printed at the bottom center, and 'Imp. Muzic. 25, C. des P. Champ.' is printed at the bottom right.

Here, the meter and the metronome marking appear to contradict one another: the metronome mark is for the quarter note, while the meter suggests that the eighth note is the counting unit, raising the possibility of a two-tick reading. Nevertheless, the one-tick method, with one tick for a quarter note, seems musically most convincing. Letting the quarter note (or more accurately, two eighth notes) equal 104 allows the eighth notes to move at a natural tempo. This approach is perfectly defensible considering the prescribed use of the metronome at the time, which was simply to help the player pick up the correct tempo before beginning to play. It is easy to pick up the tempo of the eighth note from the quarter note; here, the eighth note would be 208, a value that was at the limit of the metronome scales of the time. Of course, one could also give the same tempo as  $\text{♩} = 69$ , but it is easier to find the value of the single eighth note when starting with the quarter note.

There are alternative ways to read this metronomization. First, we could let the *eighth* note equal 104 as a “two-tick reading.” This would make the piece very slow, a full five minutes long, but it is not completely out of the question. Secondly, we could assume a printing error, and let the *dotted*

quarter equal 104. But this would make the piece unnaturally fast. Moreover, with a duration of only 1 min. 40 secs., this Pastorale would also be too short in proportion to the whole.

#### *Adoration*

Tempo indication:	<i>Andante Sostenuto</i>
Metronome marking:	Met: ♩ = 66
Meter:	C
Fastest note values:	quarter notes, some eighth notes
One-tick:	2 mins.

This movement became the second movement of the *Sonate Pascale* (see below).

#### *Chorus*

Tempo indication:	[none]
Metronome marking:	Met: ♩ (as in the first movement) = 120
Meter:	C
Fastest note values:	quarters with eighth-note upbeats
One-tick:	ca. 1 min.

This piece reprises the first movement, “Chorus of Shepherds”.

#### **Piece No. 3: Fantasia**

This piece was later published as the first movement (*Allegro*) of the *Sonate Pascale* (see below).

#### **Piece No. 4: Grand Fantasia in E Minor “The Storm” (music example 6)**

Tempo indication:	<i>Andante Sostenuto, Poco Adagio</i>
Metronome marking:	Met: ♩ = 108
Meter:	C
Fastest note values:	eighths in the first section, sixteenths in the second and third, thirty-seconds in the “poco animato”
One-tick:	ca. 6 mins.
Two-tick:	ca. 12 mins.

See video 2 (and Appendix A: Notes on the Recordings).



Music example 4. Lemmens, Piece No. 2: "Christmas Offertorium: Chorus of Shepherds," *Four Organ Pieces*, 10.

10

N<sup>o</sup> 2.

CHRISTMAS OFFERTORIUM.  
CHORUS OF SHEPHERDS.

ALLEGRO MARCATO. No. 129.

J. LEMMENS.

3533

Music example 5. Lemmens, "Christmas Offertorium: Pastorale," *Four Organ Pieces*, 14.

14

PASTORALE.

Andante. No. 104.  
Great. Flute 5 or Sept Diap.

Flute 16 & 5.

Swell.  
Resonance.

3533

The metronome marking cannot be read literally here: it would be completely impossible to maintain a one-tick tempo throughout the various sections of the piece. There is an obvious alternative solution: letting the eighth note correspond to two ticks of the metronome. The modern notation would be ♩ = 54. Why was the tempo not notated in this way here? Perhaps for pragmatic reasons. Remembering that the metronome is just a practical aid for finding the correct tempo, we note that the number 54 is more difficult to work with than 108. Using the two-tick method makes it possible to play the entire piece at more or less the same tempo (disregarding the occasional fluctuation). In this way, the introduction becomes a true introduction, a moment of calm before the storm; the trumpet solo in measure 49 (music example 7a) takes on meaning within the framework of a pastoral scene; the articulations in the “poco animato” can be respected; and finally, the player can preserve the relationship between note values in the “storm,” beginning at measure 69 *accelerando* up to ♩ = 108 (music examples 7a and 7b).

*Prayer* (music example 8)

Tempo indication:	<i>Andantino</i>
Metronome marking:	Met: ♩ = 100
Meter:	C
Fastest note values:	quarter notes
One-tick:	1 min. 30 secs.

As this new movement begins, it is logical to change counting units and switch from the two-tick to the one-tick method of counting. The choice is justified by the tempo indication, *Andantino*, and the notation in prayerful half notes. The tempo feels natural and can be maintained throughout.

*Agitato* (no movement indication, music example 9a)

Tempo indication:	<i>Agitato</i> (written between the staves)
Metronome marking:	Met: ♩ = 144
Meter:	C
Fastest note values:	eighth notes
One-tick:	ca. 35 secs.
Two-tick:	ca. 1 min. 10 secs.

By following this one-tick metronomization a perfect *prestissimo* character is produced, but if we apply the two-tick approach it would still produce an *agitato* feeling because rubato playing would be possible.

Last section (music example 9b)

Tempo indication:	[none]
Metronome marking:	Met: ♩ = 108
Meter:	C
Fastest note values:	eighth notes
One-tick:	ca. 3 mins.
Two-tick:	ca. 6 mins.

There is no reason to change counting units for this new section; it is not a new movement, nor is any tempo indication given, only the metronome marking ♩ = 108. Two-tick makes more sense in consistency and character, especially in the coda, taking back the motive of the “Prayer” at two-tick tempo, *perdendosi*.

Total duration for the Grand Fantasia:

One-tick:	13 mins.
Two-tick:	21 mins.

Both the one-tick and the two-tick durations are acceptable for a Grand Fantasia, but the one-tick interpretation is harder to argue for. The first movement, the *Andante Sostenuto*, is the most important part of this symphonic poem. Beginning with the first appearance of sixteenth notes, reading the metronome marking in the modern way would deprive the movement of almost all of its musical meaning. There would be no narrative, no intelligibility, nothing but the kind of virtuosity that is ultimately unrewarding for the performer and immeasurably dull for the listener.

Music example 6. Lemmens, Grand Fantasia in E Minor "The Storm," *Four Organ Pieces*, 32.

32

Grand Fantasia in E minor.

Andante sostenuto. *molto* = 108.  
Poco Adagio.

J. LEMMENS.

Flute 8 ft.  
3 & 4 ft.  
Soft.  
Soft.  
9 & 16 ft.

Sw.  
p Swell.  
p  
Great.  
p Swell.

3533

Detailed description: This is a page of a musical score for organ. The title is "Grand Fantasia in E minor." by J. Lemmens. The tempo is "Andante sostenuto. molto = 108." and the mood is "Poco Adagio." The score is for three manuals: Flute 8 ft., 3 & 4 ft., and Soft. (9 & 16 ft.). The music features a prominent melodic line in the upper manual with dynamic markings like "p", "Swell.", and "Sw.". The lower manuals provide harmonic support with chords and moving lines. The page number "32" is in the top left, and "3533" is at the bottom center.

Music example 7a. Lemmens, Grand Fantasia: poco animato, *Four Organ Pieces*, 36, mm 40–49.

36

Poco Animato.

Pizzicato 34 ft.  
and  
Basso 16 ft.

[Swell.]  
Tromba 9 ft.

3533

Detailed description: This is a page of a musical score for organ, page 36. The tempo is "Poco Animato." The score is for three manuals: Pizzicato 34 ft. and Basso 16 ft., and Tromba 9 ft. The music is highly rhythmic and features complex textures with many sixteenth and thirty-second notes. Dynamic markings include "pizzicato" and "[Swell.]". The page number "36" is in the top left, and "3533" is at the bottom center.

Music example 7b. Lemmens, Grand Fantasia, *Four Organ Pieces*, 39, mm 66–72.

This musical score consists of three systems of organ music. The first system features a dense texture with rapid sixteenth-note passages in the upper voices and sustained chords in the lower voices. The second system continues this texture, with a 'cresc. accelerando' marking indicating an increase in volume and tempo. The third system shows a similar texture, with a 'cresc.' marking. The score is numbered 3593 at the bottom.

Music example 8. Lemmens, Grand Fantasia: Prayer, *Four Organ Pieces*, 44.

This musical score is titled 'PRAYER' and is marked 'Andantino. Mov. ♩ = 100. Voix Clétons.' It consists of three systems of organ music. The texture is sparse, featuring long, sustained notes in the upper voices and simple harmonic accompaniment in the lower voices. The score begins with a 'pp' (pianissimo) dynamic. The third system includes 'cresc.' and 'dim.' (diminuendo) markings. The score is numbered 3593 at the bottom.

Jacques Lemmens, *Trois Sonates pour Orgue*, n.d.<sup>60</sup>

Sonata No. 1 in E Minor “Pontificale”

Allegro moderato

Adagio

March Pontificale

Fuga

Sonata No. 2 in E Minor, “O Filii”

Prélude

Part One

Part Two

Cantabile

Fuga

Sonata No. 3 in A Minor, “Pascale”

Allegro

Adoration

Final.

Alleluia.

- *attacca subito*

Victimae Paschali

- *tempo primo*

**Sonata No. 1 in E Minor “Pontificale”**

*Allegro moderato* (music example 10)

Tempo indication: *Allegretto moderato*

Metronome marking: M.M. ♩ = 116

Meter: 4/2

Fastest note values: quarters, a few passing eighths

One-tick: 5 mins. 30 secs.

Two-tick: 11 mins.

See video 3 (and Appendix A: Notes on the Recordings).

60 Jacques Lemmens, *Trois Sonates pour Orgue* (Mainz, Paris, Bruxelles: Schott & Co. n.d. and London: Novello, Ewer & Co., n.d.) [https://imslp.org/wiki/3\\_Organ\\_Sonatas\\_\(Lemmens%2C\\_Jacques-Nicolas\)](https://imslp.org/wiki/3_Organ_Sonatas_(Lemmens%2C_Jacques-Nicolas)). This edition is in landscape format, and bears the same plate number as the *Four Pieces*: 3533. The version in portrait format, also published by Schott, has the plate number from the *École d’Orgue*: 19009. The date of publication is probably 1874. Information taken from: Annelies Focquaert, “Jacques-Nicolas Lemmens,” (PhD diss., University of Antwerp, 2014), 120–124.

Music example 9a. Lemmens, Grand Fantasia: agitato, *Four Organ Pieces*, 46.

46

Mus.  $\text{♩} = 144.$

Open Diap. S.  
Great) Xing. Diap. S.  
Tromba S.  
Agitato.

3533

This musical score is for page 46 of 'Four Organ Pieces' by Lemmens. It features three systems of music. The first system includes staves for Open Diapason Soprano, Great and Xing Diapason Soprano, Tromba Soprano, and a Bassoon. The tempo is marked 'Agitato' with a metronome setting of 144. The second system continues the organ and tromba parts. The third system features a Flute and a Bassoon. The page number 3533 is printed at the bottom.

Music example 9b. Lemmens, Grand Fantasia (a new section with no tempo or character indicated), *Four Organ Pieces*, 48.

48

Mus.  $\text{♩} = 108.$

Diapason S.  
Flute S.

3533

This musical score is for page 48 of 'Four Organ Pieces' by Lemmens. It features three systems of music. The first system includes staves for Diapason Soprano and Flute Soprano. The tempo is marked with a metronome setting of 108. The second system continues the organ and flute parts. The third system features a Bassoon. The page number 3533 is printed at the bottom.

The 4/2 meter indicates a stately and calm pace for this movement, in full agreement with its solemn spirit. If we interpret the metronome marking of 116 literally, this character is lost. If, on the other hand, we change the counting unit from the half to the quarter note, the piece begins to bloom in a beautiful, vocal manner. Moreover, one passage for the *vox humana* only makes sense when played this way. The resulting duration of eleven minutes is perfectly suitable for the opening movement of a stately sonata.

*Adagio* (music example 11)

Tempo indication:	<i>Adagio</i>
Metronome marking:	♩ = 100
Meter:	C
Fastest note values:	sixteenth notes (after the <i>piu mosso</i> )
One-tick:	2 mins.
Two-tick:	4 mins.

Applying the metronome marking in the modern way produces a very un-*Adagio*-like character. Clearly, the counting unit for the metronome here must be the eighth note. Again, this fits with the pragmatic way the metronome was used: just as in “The Storm,” a quick beat (here ♩ = 100) is easier to work with than a slow one (50, which is at the lower limit of the metronome’s scale). This would make the *Adagio* four minutes long, which is in good proportion to the first movement.

*Marche Pontificale*

Tempo indication:	<i>Maestoso</i>
Metronome marking:	♩ = 108
Meter:	C
Fastest note values:	eighth-note triplets
One-tick:	5 mins.

A one-tick reading of the metronome mark gives a completely natural tempo for a stately *Marche* that does justice to both the staccato and the dotted rhythms as well as the declamatory triplets. The piece lasts for about five minutes.



Music example 10. Lemmens, Sonata No. 1, 1.

**Sonate Pontificale.**  
**N<sup>o</sup> 1.**

J. LEMMENS.

*Allroond Moderato.*  
M.M. 6 = 112.

*p*

*f*

3533

Class.  
1  
1855  
1870  
v. 1

Music example 11. Lemmens, Sonata No. 1: Adagio, 8.

*Adagio.*  
♩ = 100.

*p*

*poco rit.*

*a tempo.*

3533

*Fuga* (music example 12)

Tempo indication:	<i>Fanfare</i>
Metronome marking:	♩ = 126
Meter:	C
Fastest note values:	eighth notes with some sixteenths
One-tick:	2 mins.
Two-tick:	4 mins.

Here there is no true tempo indication, only a character indication (“Fanfare”) and the metronome marking. The “Fanfare” character – with a harmonic pulse at the eighth-note level, strong upbeats slurred to the following downbeat, and the use of sixteenth notes – calls for a two-tick interpretation: that is, the counting unit should be the eighth note. Moreover, only a two-tick interpretation allows the sonata to end in a sufficiently stately manner. With ♩ = 126, the duration is about four minutes.

Total duration of Sonata No. 1:

One-tick:	14 mins. 30 secs.
Two-tick:	24 mins.

**Sonata No. 2 in E Minor, “O Filii”**

*Prélude* [sic] (music example 13)

Tempo indication:	<i>Allegro non troppo</i>
Metronome marking:	Met: ♩ = 104

*(Part 1: Introduction)*

Meter:	C (with one transitional measure in 2/4)
One-tick:	47 secs.
Two-tick:	1 min. 30 secs.

Both the one-tick and the two-tick interpretations are possible in Part 1 of the *Prélude*. The former produces more of an *Allegro molto* than an *Allegro non troppo*, but the latter does not give us a true *Allegro*. The solution might be found by looking ahead to Part 2, which also lacks a tempo indication,

Music example 12. Lemmens, Sonata No. 1: Fuga, 20.

20

**Fuga.**

FORNARE  $\frac{1}{2} = 126$ .

fl. 16, 8, 4.

3538

Music example 13. Lemmens, Sonata No. 2, 25.

**Sonate O Filii**

25

PRELUDE.  
ALLEGRO NON TROPPO.  $\frac{1}{2} = 104$   
Swell.

**N<sup>o</sup> 2.**

J. LEMMENS.

*p* Sempre legato.

cres.

3538

but does have a faster metronome marking. Applying the two-tick principle in Part 1 and letting ♩ = 104 allows the first part to evolve towards the *fortissimo* opening chords of Part 2 in a stately and noble fashion (whether one chooses the one-tick or the two-tick interpretation for Part 2). The two-tick version makes the 2/4 measure more natural, since you don't have the feeling of an incomplete measure.

*Part 2* (music example 14)

Tempo indication:	[none]
Metronome marking:	Met: ♩ = 126
Meter:	C
Fastest note value:	eighth notes and dotted eighth-sixteenth trochees
One-tick:	5 mins.
Two-tick:	10 mins.

Here, a one-tick reading of the metronome mark produces a strong *agitato* effect, not an *allegro non troppo*. This is most apparent in the chords and the pedal part. At the one-tick tempo it also becomes nearly impossible to correctly execute the dotted rhythm in eighth and sixteenth notes in the chords. The fugato section loses its serene character, the *piano* passages on the Flute produce the wrong effect, and, above all, the effect of the move to the major scale on the last page is not satisfying. In my opinion, therefore, the two-tick interpretation is most convincing for Part 2, as well as Part 1.

Cantabile

Tempo indication:	<i>Andante</i>
Metronome marking:	Met: ♩ = 72
Meter:	C – 3/4 – C
Fastest note value:	eighth notes
One-tick:	5 mins.

Everything here suggests the one-tick interpretation is correct. Even when the meter shifts to 3/4, there is no reason to consider any counting unit but the quarter note.

Music example 14 . Lemmens, Sonata No. 2, 26.

26 *Gr. ff. Met.  $\downarrow$  = 126.*

*ff*

3533

Detailed description: This musical score consists of three systems. Each system has a grand staff with a treble clef on top and a bass clef on the bottom. The music is written in a minor key and features a complex, dense texture of chords and arpeggios in the upper staves, while the bass clef staves provide a more rhythmic and melodic foundation. The tempo is marked 'Gr. ff.' (Grandissimo fortissimo) with a metronome marking of 126. The score ends with the number 3533.

Music example 15. Lemmens, Sonata No. 2, 37.

*Fuga.* 37

*ALLEGRO CON FURCO. Met.  $\downarrow$  = 126.*

*ff*

3533

Detailed description: This musical score consists of three systems. Each system has a grand staff with a treble clef on top and a bass clef on the bottom. The music is written in a minor key and features a complex, dense texture of chords and arpeggios in the upper staves, while the bass clef staves provide a more rhythmic and melodic foundation. The tempo is marked 'ALLEGRO CON FURCO.' with a metronome marking of 126. The score ends with the number 3533.

Fuga (music example 15)	
Tempo indication:	<i>Allegro con fuoco</i>
Metronome marking:	Met: ♩ = 138
Meter:	C
Fastest note value:	eighth notes
One-tick:	2 mins. 33 secs.
Two-tick:	ca. 5 mins.

In this *Fuga*, the constant secondary dominants, the extravagant use of altered chords, the double pedal, the challenges of execution, the expressivity, and the fugue genre itself all point to a two-tick interpretation. The *con fuoco* character comes from the complex writing and the fiery, expressive harmonies rather than a forceful, exaggerated tempo.

Total duration of Sonata No. 2:	
One-tick:	ca. 12 mins. 30 secs.
Two-tick:	ca. 21 mins. 30 secs.

**Sonata No. 3 in A Minor, “Pascale” (music example 16a)**

Tempo indication:	<i>Allegro</i>
Metronome marking:	Met: ♩ = 160
Meter:	3/4
Fastest note value:	eighth notes
One-tick:	4 mins. 30 secs.
Two-tick:	9 mins.

(This is the same music as the Piece No. 3 from the *Four Pieces*.<sup>61</sup>)

Here a one-tick tempo would be much too fast: technically nearly impossible to execute, and devoid of musical meaning. The two-tick method again feels a bit slow, especially in the opening theme, but counting in eighth notes rather than quarter notes does more justice to the passages with the indication “Trumpet” and to the jubilant chords.

61 The way the metronome mark is notated – “Met:” written with a colon – suggests that the plates from the *Four Pieces* were reused without any changes. In the other sonatas, only a period is used: “Met.” See my remark in footnote 59.

*Adoration* (music example 16b)

Tempo indication:	<i>Andante sostenuto</i>
Metronome marking:	Met: ♩ = 66
Meter:	C
Fastest note values:	quarter notes, some eighth notes
One-tick:	2 mins.

Here there is no reason to question the one-tick interpretation of the metronome marking. As in the *Christmas Offertorium*, putting the beat on the quarter note produces the most convincing and natural result.

*Final-Alleluja:*

Tempo indication:	<i>Maestoso Recitando</i>
Metronome marking:	none
Meter:	6/4 – C – 6/4 – C
Fastest note value:	quarter notes
Duration	n/a

I will not consider the opening and closing sections, as no metronome marking is given.

*attacca subito* (music example 17a)

Tempo indication:	<i>Allegro</i>
Metronome marking:	Met: ♩ = 166 <sup>62</sup>
Meter:	3/4
Fastest note value:	eighth notes
One-tick / Two-tick:	see paragraph below

*Victimae Paschali,*

Tempo indication:	<i>piu lento</i>
Metronome marking:	none
Meter:	3/4
Fastest note value:	quarter notes with eighth-note upbeats
One-tick / Two-tick:	see paragraph below

62 The period after “Met”, as in the Sonate No. 1 and Sonate No. 2, indicates that this movement was newly engraved or newly composed.

Music example 16a. Lemmens, Sonata No. 3, 41.

**Sonate Pascale.**  
N<sup>o</sup> 3.

J. LEMMENS.

ALLEGRO, M<sup>o</sup> 4 = 169.

Great.

8 & 4 ft.

16 & 8 ft.

3439

Music example 16b. Lemmens, Sonata No. 3, 50.

ADORATION.

50

ANDANTE SOSTENUTO, M<sup>o</sup> 4 = 66

Great.

Soft 8 ft.

pp

Swell.

pp

Great.

16.

3439



*Tempo primo, 57.*

Tempo indication:	<i>tempo primo</i>
Metronome marking:	none
Meter:	3/4
Fastest note value:	eighth notes
One-tick / Two-tick:	see paragraph below

Tempo indication:	<i>Maestoso</i>
Metronome marking:	none
Meter:	6/4 – C
Fastest note value:	quarter notes
Duration	n/a

This large movement consists of an opening and closing section marked *maestoso* and a middle section consisting of three parts: a fugue with a metronome marking of 166 (*Allegro* in 3/4); a setting of the *Victimae Paschali*, marked only “*piu lento*,” and a return of the fugue theme marked *tempo primo*.

For the two fugal parts together, the one- and two-tick durations are:

One-tick: 2 mins. 30 secs.

Two-tick: 5 mins.

The “*piu lento*” has no metronome mark. If we posit a slower tempo suitable to the larger context, perhaps ♩ = 144, then the duration of the *Victimae Paschali* would be roughly:

One-tick: 1 mins. 30 secs.

Two-tick: 3 mins.

The same problem arises here as in the *Allegro non troppo* in music example 11. The one-tick tempo seems improbable, for the reasons mentioned above. The two-tick tempo feels very slow at first, but because of the form of the movement – a fugue in strict legato style (*style lié*) – it cannot be ruled out (see figures 17b and 17c).

Total duration of the *Final*:

One-tick: 4 mins. plus the several measures of the “maestoso”

Two-tick: 8 mins. plus the “maestoso”

Total duration of Sonata No. 3:

One-tick: ca. 10 mins. 30 secs. plus the “maestoso”

Two-tick: ca. 19 mins. plus the “maestoso”

Music example 17a. Lemmens, Sonata No. 3, 52.

52

**Final.**  
ALLELUIA.

**J. LEMMENS.**

*Maestoso Recitativo.*

*Attaca subito.*

*Allegro. Met. ♩ = 160.*

3583

Music example 17b. Lemmens, Sonata No. 3, 58.

58

*cresc.* *ff* *cresc.* *cresc.*

Music example 17c. Lemmens, Sonata No. 3, 59.

59

*cresc.* *ff* *cresc.* *M. ass. toso.* *tutti.* *rit.*

3,548

## General Remarks

As a rule, Lemmens only notates metronome markings above 100. Slower markings appear only twice:

- 166 *allegro*
- 160 *allegro*
- 152 *allegretto*
- 144 *agitato*
- 138 *allegro con fuoco*
- 126 fanfare-fuga
- 126 no tempo indication
- 120 *allegro maestoso*
- 116 (for the half note) *allegro moderato*
- 108 *andante sostenuto*
- 108 *andantino*
- 108 no tempo indication
- 108 *maestoso*
- 104 *animato*
- 104 *allegro non troppo*
- 100 *adagio*
- 72 *cantabile-andante*, almost exclusively quarter notes
- 66 *andante sostenuto*, same as previous

Most of the values lie between 100 and 166: precisely the range of values that can be picked up from a metronome with relative ease and are readily divisible into smaller note values. Perhaps the best example is the theme from the “Fuga-Fanfare”, from the Sonate Pontificale (see music example 12). Here, with the metronome set at 126 we can instantly comprehend the rhythm of the theme, counted in eighth notes.

In the specific pieces with slower metronome markings, such as the last two on this list, this method is less necessary, as these pieces have an uncomplicated and fairly even rhythm, smooth throughout. The Cantabile andante (72) and Andante sostenuto (66) are excellent examples of this style.

The metronome marking ♩ = 108 at the beginning of “The Storm” seems particularly remarkable. But it is, in fact, the best way to use a ticking metronome in a way that allows the tempo of the middle part to agree with

the introduction. The inclusion of the indication *Poco Adagio* in the first measure removes any doubt.

We can conclude that Lemmens always chooses the most pragmatic solution: he favors faster metronome settings because it is easier to pick up the tempo from a metronome ticking fast than one ticking slow. To determine how many ticks of the metronome correspond to the note value indicated, we turn to the Italian tempo heading and the general character of the piece. In other words, we have to choose between a one-tick or a two-tick interpretation of the metronome marking for each piece individually, and for each movement of a sonata. The application of the two-tick method in pieces where high metronome markings pose a problem follows a logical pattern that takes into account whether the indicated note values are subdivided during the course of the piece. Tempi that seemed unplayable at a one-tick tempo frequently feel too slow at a two-tick tempo; but the slower tempi are playable and actually rhetorically convincing. Perhaps we should not let our present-day sense of tempo take undue precedence over a method that can account for the metronome markings exactly as written, as well as other musical parameters. The slower two-tick tempo is completely congruent with the character of the music in every case, in both the *Four Pieces* and the *Sonates*. The “drama” of the former and the stately character of the latter can both appear to best advantage when we deal with the metronome markings on a case-by-case basis. None of the two-tick pieces are inordinately long. On the contrary, the sonatas would be on the short side if all the metronome marks were read in the modern, one-tick manner.

### Ideological context

As this analysis makes clear, there are musical, technical, and expressive reasons to consider playing certain pieces by Jacques Nicolas Lemmens at what modern conventions would call half-tempo. This may seem a radical hypothesis, but there is additional evidence to support it. In his day, Lemmens was hailed as a modernizer, perhaps even the saviour, of Catholic organ playing. From the mid-1800s, an increasing number of voices began to call for a move away from the more worldly style of Lefébure-Wely and the young César Franck. The Catholic Church wanted to distance itself completely from the outside world, and it began to search for a religious style that would accord with Catholic thinking. The elements of that style in-

cluded: the traditional compositional techniques of strict contrapuntal and fugal writing; a solemn rhythm, as found in the music of the old masters of the Palestrina school; a very reserved attitude toward the expression of emotions; limited use of orchestral effects; and so on.

Tempo was another essential element of this new style of “true” Catholic church music, organ music, and performance. Its advocates argued for a slow to moderate tempo as the norm, tailored of course to setting, function, and content. They spoke of “eternity,” “infinite things,” (Victor Hugo), the “calm of the definitive” and “works whose majestic calmness and serene beauty are well suited to inspire quiet contemplation” (Edgar Tinel).

Edgar Tinel (1854–1912) was the director of the Lemmens Institute, the *Institut de Musique Religieuse*, between 1881 and 1909. Tinel took over the directorship when Lemmens died young, soon after the founding of the *École de Musique Religieuse* in Mechelen in 1879. As director of the Lemmens Institute, Tinel stood at the very center of Catholic church music in Belgium, a country that served in many respects as a model for its southern neighbours, and he was an important influence on emerging generations of organists. Tinel’s now-legendary speech to the Société Saint Grégoire in 1883 was published in *Musica Sacra*, the periodical of the episcopacy:

How does one mould a good organist? ... it comes down to defining good taste, and to teaching ... all that is appropriate to perform in [the church] ... Some works that are written in a rather *concertante* style ... are easily recognized by their altogether worldly, joyful character; by their lively, bouncing rhythm, their martial, dance-like or exaggerated tempo ... Though these works may sometimes be signed by great masters, they are nonetheless absolutely out of place in the church, whether played before, during, or after a service.

One moulds a student’s taste by having him study the works of the sixteenth- and seventeenth-century masters: Frescobaldi, Asola, Pitoni, Fasolo, Hassler ... and Palestrina ... works whose calm majesty and serene beauty are made to inspire quiet contemplation.<sup>63</sup>

63 Edgar Tinel, Speech to the Société Saint Grégoire, *Musica Sacra* 2, no. 12 (1883): 99.

A review of the 1882 organ examinations at the Lemmens Institute by the school's founder, Kanunnik Van Damme, reveals that the audience was quite critical of the tempi of the pieces performed. Van Damme boldly asserts that although "certains artistes" have accustomed their listeners to fast tempi, this dizzying speed often makes music less comprehensible and is unsuited for the church. In other words, this school for church music taught moderate tempi as an essential element of performance. Similarly, of the organ exams in 1880, we read:

The exams of the students from the organ class were most brilliant. In their performances, listeners could admire the incomparable qualities of the Master, the perfection of the fingering, the excellent use of the pedal, the pureness and correctness of the playing, the sureness of the touch, and above all, that imperturbable pace that lends grandeur to the performance, as commanding as a lion's paw! Several compositions by Monsieur Lemmens were interpreted in this manner.<sup>64</sup>

*Material for comparison from pieces for harmonium and for piano*

It is notable that the flexible use of the two-tick principle in Lemmens's music occurs in those works of his that were published in England (although a continental edition was available for the sonatas too). The phenomenon of "too-fast" metronome markings does not occur so often in his harmonium pieces published in France and Brussels. In those pieces, all the metronomizations must be interpreted using the one-tick method, unless there is clear evidence to the contrary – one excellent example (music example 18) is the *Fuguette*.

The metronome mark ♩ = 152 must be read in the manner prescribed at the time for 2/4 meter: there are four beats, and the eighth note becomes the counting unit.<sup>65</sup> Consequently, the piece follows the two-tick principle, resulting in ♩ = 152.

64 Joseph Duclos, "Essai sur la vie et les travaux de l'auteur," in *Du Chant Grégorien, Ouvrage Posthume de Jacques-Nicolas Lemmens* (Gent, 1886), xxxvi. Duclos quotes from L'Univers, Saturday August 14, 1880.

65 See Instructions for using the metronome on page 36f.

Several piano works published in Brussels (Mayence, Déposé 1856) present a similar picture. The *Aspiration Religieuse* must certainly be one-tick, the *Promenade sur l'eau* is likely two-tick, and there can be no doubt that the *Rikke-Tikke-Tak* in 2/4 is two-tick (music example 19).

### The British context: Wallace and Rooke

The flexible application of the two-tick principle is a recurring feature of English musical editions of this time, and it is safe to assume that Lemmens was acquainted with this fact. One bit of evidence comes from a program for a concert he gave on November 16, 1871 in the Exhibition Palace in Dublin.<sup>66</sup> The program lists works by William Vincent Wallace, including selections from the opera *The Amber Witch*.<sup>67</sup> I thought it was important to look closely at this score, especially since it contains metronome markings.

Here are my conclusions: the metronome markings here do not indicate absolute values, in the modern manner. Instead, each marking must be interpreted as a function of all the parameters that can influence the tempo, including the Italian heading, the character of the piece, the meter, the smallest note value, and the text. The metronome helps the player find the correct tempo before playing the piece. It is not supposed to keep ticking along while the piece is performed; as I mentioned in the first part of this article, that would go against all the expressive principles of the era, and against contemporary instructions for the use of the metronome. In some cases, of course, the beat of the metronome ultimately does coincide with the given note value; but sometimes this is not the case. The choice is dictated by the context, and as I demonstrated for the pieces by Lemmens above, each piece requires a new choice. As a quick indication of the consequences of this approach, I might mention that in the first act of Wallace's opera, a full 25 of the 49 metronome markings should not be interpreted in the modern way, but instead,

66 "Grand French and Irish Concert" Dublin concert announcement, *Freeman's Journal and Daily Commercial Advertiser* (November 16, 1871). Special thanks to Annelies Focquaert for providing her unpublished documentation.

67 See William Vincent Wallace, *The Amber Witch: Romantic Opera in four acts*, arr. from the score by Edward F. Rimbault (London: Brewer & Co., 1860–1861) [https://s9.imslp.org/files/imglnks/usimg/f/f3/IMSLP220246-SIBLEY1802.21034.873a-39087011186295act\\_I-II.pdf](https://s9.imslp.org/files/imglnks/usimg/f/f3/IMSLP220246-SIBLEY1802.21034.873a-39087011186295act_I-II.pdf) and [https://s9.imslp.org/files/imglnks/usimg/4/41/IMSLP220247-SIBLEY1802.21034.3f74-39087011186295act\\_III-IV.pdf](https://s9.imslp.org/files/imglnks/usimg/4/41/IMSLP220247-SIBLEY1802.21034.3f74-39087011186295act_III-IV.pdf). Lemmens doubtless used this score during his performance in Dublin, where he accompanied his wife Helen Sherrington on a Mustel harmonium.



Music example 18. Lemmens, 3. Fuguette, in *Morceaux Pour Orgue-Mélodium*, Schott [1884].

13

**Nº 5.**  
**FUGUETTE.**

Allegro. (♩ = 152.)

1 6 8

25248.

Music example 19. Lemmens, *Rikke tikke tak: étude caractéristique pour piano* (Bruxelles : Meyne , [1856]).

2

RIKKE TIKKE TAK.

J. LEMMENS.



Animato. (Met:  $\text{♩} = 132.$ )

PIANO.

*p* Staccato.

*poco cresc.*

*dim.*

*poco cresc.*

83

M. 761.

either according to the two-tick method, or transformed from a binary to a ternary rhythm (I will return to ternary meters in more detail below).

As I was examining Wallace's music, I remembered a problem I had encountered much earlier with a song from my own library (music example 20). This privately bound collection of songs contains William Michael Rooke's "*The Spell is Woman's Love*" from the opera *Amilie*, with the peculiar metronome marking of 112  $1/2$ .<sup>68</sup> Before the piano reduction of *Amilie* became available in its entirety online,<sup>69</sup> I believed this metronome mark to be an error. *Amilie* was published in London in 1837, about twenty years after its composition but only shortly after its premiere in Covent Garden.<sup>70</sup> Most of the pieces in the piano reduction have metronome markings, and if we examine these closely, there can be no doubt that they must be interpreted on a case-by-case basis. In most of the pieces the decision is between one-tick and two-tick, and the context makes the choice clear. If we actually try out the metronome markings, we can see that half of them need to be interpreted as two-tick. In cases where there is any doubt (i.e., both interpretations seem possible), the metronome marking is followed by the fraction  $1/2$ , which is meant to indicate that a two-tick interpretation is intended. This explains the marking of "112  $1/2$ " for "*The Spell is Woman's Love*." A similar notation also appears in three other cases.<sup>71</sup>

In every case, the indication  $1/2$  appears when the counting unit is initially unclear because the first few measures of a piece are musically plausible in both the one-tick and the two-tick interpretations.

We can conclude that in binary meters there is always a choice to be made between one-tick and two-tick. Regarding ternary meters, both the anthology and the IMSLP scores also provide some interesting data. I will offer a few examples here.

68 Rooke (1794–1847), was an Irish citizen.

69 William Michael Rooke, *Amilie or the Love Test: Grand Romantic Opera in three Acts* (London: Duff and Hodgson, 1839), 168, [https://s9.imslp.org/files/imglnks/usimg/d/d3/IMSLP161912-PMLP290759-Rooke\\_-\\_Amilie\\_VS\\_IArchBPL.pdf](https://s9.imslp.org/files/imglnks/usimg/d/d3/IMSLP161912-PMLP290759-Rooke_-_Amilie_VS_IArchBPL.pdf).

70 It may be of little consequence, but I might add that Covent Garden was not unfamiliar to Lemmens, since his wife Helen Sherrington regularly appeared there in leading roles.

71 80  $1/2$  (on page 45); 96  $1/2$  (on page 84); 112  $1/2$  (on page 168).

Music example 20. W. M. Rooke, "The Spell is Woman's Love," from a volume of sheet music in the author's private library.

*THE SPELL IS WOMAN'S LOVE.*

*♩ = 112  $\frac{1}{2}$ .*

*SOLO Violoncello.*

*ANDANTE.*

The musical score is presented in two systems. The first system consists of four staves: two for the cello accompaniment (treble and bass clefs) and two for the vocal line (treble and bass clefs). The tempo is marked 'ANDANTE' and the time signature is common time (C). The key signature has one sharp (F#). The tempo marking is  $\text{♩} = 112 \frac{1}{2}$ . The title 'THE SPELL IS WOMAN'S LOVE.' is centered at the top. The piece is for 'SOLO Violoncello.' The first system of the cello part includes a 'Solo Violoncello' instruction. The second system includes the vocal line with the lyrics: 'What is the spell which in man\_hood's dawn Spreads o'er the bold - est'. The vocal line is in treble clef, and the cello part continues in bass clef. The score ends with a double bar line.

What is the spell which in man\_hood's dawn Spreads o'er the bold - est

-19 An Obligato Violoncello Accompaniment to this song may be had separately.



in ♩ = 108, which is not too fast for a “Romance” and maybe fits more in the spirit of an *Andantino con moto*.

*Finale Act I*, (music example 21)

Tempo indication:	<i>Allegretto con grazia</i>
Metronome marking:	♩ = 152
Meter:	3/4
fastest note values:	eighth notes

The fastest note value in this example is the eighth note. Here, it is important to be able to convey the dactylic rhythm. The text is set in quarter notes with some extended passages in eighth notes and, with its repeated notes, is more declamatory than melodic; it is questionable whether ♩ = 152 is a workable tempo. At such a speed it becomes difficult to pronounce and comprehend the text.

The one-tick approach, therefore, might be possible, but would be difficult to realize effectively in the context of an opera setting, performed in a theater. Meanwhile, the slower two-tick interpretation at ♩ = 152 would certainly convey the character of “con grazia.”

It is nevertheless a strange coincidence that this metronome marking is the same as Lemmens’s in his *Allegretto*, and that in this piece the harmony definitely progresses by the measure. The opening measures emphasize this movement with repeated notes in the fashion of a *bourdon* or drone: eighth-eighth-quarter-quarter, eighth-eighth-quarter-quarter, eighth-eighth-quarter-quarter.

If we allocate four beats to the measure at 152, we arrive at ♩ = 114. This tempo is musically convincing, but leaves open the question – just as for Lemmens’s *Allegretto* – of why it was not notated in this manner. The possible durations for Lemmens’s *Allegretto* are, according to our various systems of reckoning:

One-tick:	2 mins. 50 secs. (not taking into account the “agitato” that intensifies the tempo and shortens the piece somewhat)
Two-tick:	5 mins. 30 secs.
Metrical:	3 mins. 47 secs.

The third solution is musically very convincing, although the logic behind it is slightly more complex. The first solution, meanwhile – leaving aside the question of whether or not it is technically feasible – hardly corresponds to the expected duration of a *Finale*.

*Quintet*, in Amber, p. 135

Tempo indication:	<i>Andante con moto</i>
Metronome marking:	♩ = 80
Meter:	3/4
fastest note values:	eighths, sometimes sixteenths with <i>un poco rit</i> on repeated notes

Here, the one-tick approach is perfectly convincing. Remembering that *andante* and *allegretto* are both moderate tempos, however, it is a puzzle as to why there is such a very great difference between the metronome markings for this *Andante* (♩ = 80) and an *Allegretto con grazia* on page 115 that, at ♩ = 152, is almost twice as fast. The discrepancy might suggest that we should not interpret the 152 in the modern way, but rather should use either the two-tick or the metrical approach. With the two-tick method, we arrive at ♩ = 76, placing the *Allegretto con grazia* in a reasonable relationship to the *Andante con moto*.

*Allegretto*, in Amber, p. 240

Tempo indication:	<i>Allegretto</i>
Metronome marking:	♩ = 104
Meter:	3/4
fastest note values:	eighth notes in the voice, sixteenths in the orchestra

*Allegro*, in Amber, p. 243

Tempo indication:	<i>Allegro ma non troppo</i>
Metronome marking:	♩ = 100
Meter:	C
fastest note values:	eighth notes

**Nº 10. FINALE. ACT. I.** 115

**RECIT.**

PASTOR. 

MARY. 

MARY. 

(♩ = 152.)  
ALLEGRETTO  
CON GRAZIA 

**CHORUS of Soldiers.**  
Tenori.  
Bassì.  
Save you, fair maiden, when-so-éeer you pray For thought...less  
Save you, fair maiden, when-so-éeer you pray For thought...less





*Tempo I*, in Amber, p. 247, last system

Tempo indication: [none]  
Metronome marking: ♩ = 112  
Meter: 3/4  
fastest note values: eighth notes in the voice, sixteenths in the orchestra

Here, one-tick is a possibility, but it would make the outer sections quite fast. On the other hand, it makes sense to have a slightly faster metronome marking for an Allegretto than for the aforementioned Andante con moto of the *Quintet* on page 135 (♩ = 80).

*Trio*, in Amber, p. 266

A very virtuosic piece with broken chords in sixteenths, eighth-note triplets.

Tempo indication: *Andante con moto*  
Metronome marking: ♩ = 88  
Meter: 3/4  
fastest note values: sixteenth notes

*Air*, in Amber, p. 317, second system

Tempo indication: *Andante con tristezza*  
Metronome marking: ♩ = 80  
Meter: 3/4  
fastest note values: eighth notes in the voice, sixteenths in the orchestra

*Latin Hymn and Chorus*, in Amber, p. 359

Tempo indication: *Lento ma non troppo*  
Metronome marking: ♩ = 66  
Meter: 3/4  
fastest note values: eighth notes

*Allegro*, in Amber, p. 360

Tempo indication: *Allegro*  
Metronome marking [none]  
Meter: C  
fastest note values: quarter notes

*Tempo primo*, in Amber, p. 361

Tempo indication:	[none]
Metronome marking	[none]
Meter:	$\frac{3}{4}$
fastest note values:	sixteenth notes

New section in major mode, in Amber, p. 365

Tempo indication:	[none]
Metronome marking:	$\downarrow = 84$
Meter	$\frac{3}{4}$
fastest note values:	eighth notes

A one-tick tempo yields perfectly convincing results for all of these pieces in  $\frac{3}{4}$  meter. We might conclude that in general, one-tick is appropriate for relatively low metronome settings (90–100 or below), while we can consider two-tick for higher ones.

In Rooke's pieces in  $\frac{6}{8}$  meter, the metronome markings give the quarter note, from which it is easy to calculate the eighth note.

*Overture*, in Amelie, p. 1, second system

Tempo indication:	No tempo indication, but <i>Moderato</i> is probably still valid
Metronome marking:	$\downarrow = 76$
Meter	$\frac{6}{8}$
fastest note values:	eighth notes, upbeat sixteenths

The best tempo solution is  $\downarrow = 152$ . This fits logically with the aforementioned *Allegretto* in  $\frac{3}{4}$  (also on page 1), where  $\downarrow = 76$ , thus  $\downarrow = 152$ . Again on page 3,  $\downarrow = 76$ .

*Air: Who has not mark'd*, in Amelie, p. 45

Tempo indication:	<i>Andante</i>
Metronome marking:	$\downarrow = 80 \frac{1}{2}$
Meter	$\frac{6}{8}$
fastest note values:	sixteenth notes

We can deduce that  $\downarrow = 40$ ; as we saw above,  $\frac{1}{2}$  is added to clarify that the two-tick interpretation is correct, because the beginning of the piece would also work at a one-tick tempo.

*When the morning first dawns*, in *Amelie*, p. 175

Tempo indication: *Allegretto*  
Metronome marking: ♩ = 69  
Meter: 6/8  
fastest note values: sixteenth notes

This can be read as one-tick. It results in a rather fast tempo for an *Allegretto*, but half that tempo is certainly not an option; it would be completely at odds with “80 1/2” for the earlier *Andante*. It would make no sense to insist on M.M. = 35 here; *a fortiori*, the tempo must be higher. On the other hand, it seems illogical that the large leap between 40 and 69 should correspond to the rather small difference between *Andante* and *Allegretto*. Likely this is a printer's error and should have been ♩ = 69, corresponding to ♩ = 138.

*Introduction - Chorus*, in *Amber*, p. 170

Tempo indication: *Allegro ma non troppo*  
Metronome marking: none  
Meter: 6/8

But taking into account the following:

*Allegro l'istesso tempo* – voices *con fuoco*, in *Amber*, p. 174, second system

Tempo indication: *Allegretto*  
Metronome marking: ♩ = 112  
Meter: *C alla breve*  
Fastest note values: eighth notes, quarter-note triplets

It is logical to propose, based on the *l'istesso tempo*, that ♩ = 112 for the 6/8 meter – which is also musically convincing.

*Oh Lady Moon*, in *Amber*, p. 188

fastest note values: *Andantino con moto*  
Metronome marking: ♩ = 92  
Meter: 6/8  
fastest note values: eighth notes

The one-tick interpretation works here.

*Air*, in *Amelie*, p. 128

fastest note values: *Andante con moto*

Metronome marking: ♩ = 76

Meter: 12/8

fastest note values: eighth notes

Certainly one-tick.

“Pierre,” in *Amelie*, p. 141

fastest note values: *Andantino*

Metronome marking: ♩ = 69

Meter: 12/8

fastest note values: eighth notes

Two solutions work musically:

One-tick: ♩ = 138

One-tick: ♩ = 69

The second seems to be a better solution.

*Finale*, in *Amelie*, p. 272

fastest note values: *Andantino*

Metronome marking: ♩ = 54

Meter: 12/8

fastest note values: eighth notes with sixteenth-note upbeats

This should probably be ♩ = 54; as for the *Andantino* on page 141, this is the most convincing solution. But the 54 is remarkable, it is an exceptionally low value. It can only be explained by the character of this particular piece.

“Elsie,” in *Amber*, p. 297, last system

fastest note values: *Allegro agitato*

Metronome marking: ♩ = 132

Meter: 12/8

fastest note values: eighth notes

No tempo indication, in *Amber*, p. 301, second system

Metronome marking: [none]

Meter: C

*appassionato*, in Amber, p. 301, last system

Metronome marking: ♩ = 132

Meter: 12/8

*Allegro molto*, in Amber, p. 303

Metronome marking: ♩ = 104

Meter: C alla breve

One-tick is perfectly possible here, given that the 12/8 meter actually has four beats. This is confirmed by the transition to both the C-meter and the C-alla breve, where the voices have quarter notes and the orchestra continues with eighth-note triplets. These are the beats given by the metronome. Thus we let the beat of the metronome (at 132) equal a dotted quarter. The pronunciation of the words poses no problems since eighth notes usually occur only as repeated notes. Moreover, it is a dramatic scene that does call for a fast tempo.

Rooke's metronome markings for 6/4 meter, as for 6/8, are "binary" numbers for a note value that has two beats:

*No tempo indication*, in Amelie, p. 14

Metronome marking: ♩ = 116

Meter: 6/4

fastest note values: quarter notes

Here, one clearly needs to derive the quarter note from the half note – consider, for instance, that the rhythm in the first few measures moves in pairs of quarter notes. This results in ♩ = 232.

The coda on page 23 is marked *Molto presto*; ♩ = 96. The rhythm here is ternary and the beat is dotted ♩ = 96 or ♩ = 288, in complete agreement with the feeling of *molto presto*. It would have been contradictory to have a lower figure for the *Molto presto* (96) than for the main part of the piece (116).

*Moderato*, in Amelie, p. 24

Metronome marking: ♩ = 116

Meter: 6/4

fastest note values: quarter notes

The only completely convincing solution is the same one Rooke uses on page 14.

No tempo indication, in *Amelie*, p. 33, second system

Metronome marking: ♩ = 76

Meter 6/4

fastest note values: eighth notes

It seems most logical to see the quarter note as ♩ = 152. On page 37, music is quoted from page 14 (where the metronome marking was 116) with no tempo change indicated. This is somewhat strange, since it is so much slower. The coda is also similar to the coda from page 14, “molto presto,” although it lacks a metronome marking.

No tempo indication, in *Amelie*, p. 230, second system

Metronome marking: ♩ = 92

Meter 6/4

fastest note values: quarter notes

This must be an error and should be ♩ = 92, just as on page 284, where the same music recurs. We can thus apply the one-tick method here, with ♩ = 184. Two-tick would be extremely slow, considering 92 for the dotted half note would be extremely fast.

Wallace does not use the 6/4 meter, although he does write frequent quarter-note triplets in C.

The edition of Rooke’s opera *Amilie* is perhaps not fully representative of the period to which the Lemmens editions belongs, as it predates Lemmens’s productive period in England by more than thirty years. On the other hand, the edition does provide ample support for the supposition that metronome markings were handled differently than in the twentieth century or today.

The Wallace edition does coincide with Lemmens’s activities in England, and Lemmens’s concert programs show that he was familiar with it. There is no doubt that Lemmens used this piano reduction of *The Amber Witch* for his piano (or harmonium) accompaniment, and like any other player he too would have had to make sense of the metronome markings in a musically convincing manner.

## César Franck: Answering a Few Questions

I have been spurred to write the concluding part of this article by two things: firstly, the existence of a “César Franck tradition,” with its very particular interpretation of the tempo indications in Franck’s organ works, and secondly, the commotion that ensued upon the publication by Joël-Marie Fauquet of metronome markings by César Franck.<sup>72</sup>

In the first section below, I examine the contested metronome figures and their internal logic; their correspondence with the Italian tempo marks; and how they fit into the larger context of the metronome markings in other works by Franck. I also attempt to apply the results of this analysis, suggesting implications for various aspects of performance practice. In the second section, I will suggest an explanation for how, in the twentieth century, a tradition of interpreting Franck arose that deviated so markedly from the evidence of the primary sources.

### Metronome markings in the *Six Pièces*, the *Trois Pièces*, and two works for harmonium

The metronome markings for the *Six Pièces d’Orgue* Op. 16–21 were first published by Joël-Marie Fauquet.<sup>73</sup> The original score from which Fauquet took the marks is privately held and not accessible to the public. It is a first edition from 1868 in which the tempo marks have been penciled in, and on the cover of which Franck wrote, “Pierre-Joseph-Prosper Lecocq, 110 rue du Bac.”<sup>74</sup> Fauquet has established the authenticity of this source beyond any doubt. There is also a second source for the marks: a letter by Franck now held by the Brooklyn Museum of Art.<sup>75</sup> In this letter, Franck provides precisely the same marks as in the “Lecocq” score, and also adds two more: for the *Cantabile* and the *Pièce Héroïque*, respectively, in the *Trois Pièces*. The discovery of these tempo markings has been widely disseminated and discussed.<sup>76</sup>

72 Joël-Marie Fauquet, *César Franck* (Paris: Fayard, 1999), 950.

73 Fauquet, Chapter 5 in *César Franck*.

74 Fauquet, *César Franck*, Chapter 5.

75 Rollin Smith, “César Franck’s Metronome Marks: From Paris to Brooklyn; Newly Discovered Indications for the *Trois Pièces*,” *The American Organist* 9 (2003): 58–60.

76 See Marie-Louise Langlais, “A New Discovery: César Franck’s Metronome Markings for His *Six Pièces* for Organ,” *The American Organist* (March 2000): 42–43; Joris Verdin, “Discussies over César Franck,” *Het Orgel* 2 (2011): 5–9; Ton van Eck, “César Franck’s Metronome Markings Reconsidered,” *The American Organist* 2 (2002): 52–55; Marie-Louise Langlais, “Découverte des mouvements métronomiques de César Franck

For reference, here are the metronome marks for the organ and harmonium works of Franck:

*Six Pièces*

*Fantaisie*

Poco lento	♩ = 80
Allegretto cantando	♩ = 104
Quasi lento	♩ = 80
Adagio	♩ = 69

*Grande Pièce Symphonique*

Andantino serioso	♩ = 112
Allegro non troppo e maestoso	♩ = 104
Andante	♩ = 72
Allegro	♩ = 126
Andante	♩ = 72
Allegro non troppo e maestoso	♩ = 104
Andante	♩ = 72
Beaucoup plus largement que précédemment	♩ = 72

*Prélude, Fugue et Variation*

Andantino	♩ = 72
Lento	♩ = 60
Allegretto ma non troppo	♩ = 112
Andantino	♩ = 72

*Pastorale*

Andantino	♩ = 76
Quasi allegretto	♩ = 126
Andantino	♩ = 76

dans ses oeuvres pour orgue," in *Pro Organo Pleno, Essays in Honor of Ewald Kooiman*, Hans Fidom, Jan R. Luth, and Christoph Wolff, eds. (Leeuwarden: Boeijenga, 2008), 61–66.



*Prière*

Andantino sostenuto	♩ = 92
Final	
Allegro maestoso	♩ = 100

*Trois Pièces*

*Fantaisie*

Andantino	no M.M.
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*Cantabile*

Non troppo lento	♩ = 92
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*Pièce Héroïque*

Allegro maestoso	♩ = 104
------------------	---------

*Harmonium works:*<sup>77</sup>

*Offertoire sur un Noël Breton*<sup>78</sup>

Andante	♩ = 88
Allegretto	♩ = 100
Tempo primo	♩ = 88
Tempo secondo	♩ = 100
Tempo primo	♩ = 88

*Quasi Marcia* op. 22<sup>79</sup>

Allegretto	♩ = 88 (the eighth is the shortest note value)
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77 See Joris Verdin, "César Franck en het harmonium," *Het Orgel* 94, no. 5 (1998): 6–23. This article was published a year before the metronome markings became known, and the conclusion says: "These tidbits of information lead us to believe that the tempo is rather fast. Therefore we need to review...the Franck 'tradition.' Many of the tempi provided by Tournemire in his edition of *L'Organiste* are doubtless too slow. For instance, the first piece, "poco allegretto," bears the metronome marking ♩ = 63 (the shortest note value is the eighth note), which differs quite a lot from the aforementioned marks. This leads to the general conclusion that in many cases, including for the organ works, we may safely take a faster tempo than is usual today."

78 César Franck, *Offertoire sur un Noël Breton* (Paris: L'Athenée musical, 1867). This edition has optional registrations for the organ.

79 César Franck, *Quasi Marcia* (Paris: Régnier-Canaux, 1868).

These metronome figures are very controversial. They are at odds both with the received image of Franck as “Pater Seraphicus” (on which more below) and the established tempo choices for his music that developed over the course of the twentieth century (although these can vary quite a bit as well). I will not review this debate here, but one thing is clear: the twentieth-century tempi deviate substantially from the generally quick and lively tempi that Franck himself prescribed. The differences are of such a magnitude that various arguments have been advanced which call the marks into question, nuance them, adjust them, or even dismiss them as nonsensical.

Many misgivings have thus been voiced about the authenticity of these metronome figures. I shall return to this point later, but I should like to begin by offering a few arguments in support of the markings: both their internal consistency and their correctness.

The logic of the metronome marks in the organ works

First and foremost, the metronome indications for the organ works display an internal logic. A few examples:

#### ALLEGRO

##### *Final*

Tempo indication:	<i>Allegro Maestoso</i>
Metronome marking:	♩ = 100
Meter:	C
Fastest note values:	eighth note triplets

##### *Pièce Héroïque*

Tempo indication:	<i>Allegro Maestoso</i>
Metronome marking:	♩ = 104
Meter:	3/4
Fastest note values:	sixteenth notes

##### *Grande Pièce Symphonique*

Tempo indication:	<i>Allegro non troppo e Maestoso</i>
Metronome marking:	♩ = 104
Meter:	C
Fastest note values:	eighth note triplets

The Allegro tempos are almost identical in all three cases, giving the same impression of the speed of the fastest note values.

## ALLEGRETTO

### *Pastorale*

Tempo indication: *Quasi allegretto*  
Metronome marking: ♩ = 126  
Meter: 3/4  
Fastest note values: eighth notes

### *Prélude, Fugue et Variation*

Tempo indication: *Allegretto ma non troppo*  
Metronome marking: ♩ = 112  
Meter: 3/4  
Fastest note values: eighth notes

### *Fantasia en ut*

Tempo indication: *Allegretto cantando*  
Metronome marking: ♩ = 104  
Meter: 2/4  
Fastest note values: sixteenth notes

The Allegretto indication fluctuates logically according to modifying terms. Franck gives no metronome mark for an unmodified Allegretto.

## ANDANTINO

For Franck, “Andantino” is a “light walk,” usually in a 3/4 meter. Although the quarter-note tempo indications range widely between 76 and 112, the speed of the fastest note values differ by less than ten percent. The speed of the fastest note value in the Andantino serioso is logically proportionally slower:

### *Pastorale*

Tempo indication: *Andantino*  
Metronome marking: ♩ = 76  
fastest note value: ♪ = 304  
Meter: 3/4  
Fastest note values: sixteenth notes

*Prière*

Tempo indication:	<i>Andantino sostenuto</i>
Metronome marking:	♩ = 92
Metronome fastest-note-value equivalent	♩♩ = 276
Meter:	3/4
Fastest note values:	eighth note triplets

*Grande Pièce Symphonique*

Tempo indication:	<i>Andantino serioso</i>
Metronome marking:	♩ = 112
Metronome fastest-note-value equivalent	♩ = 224
Meter:	C
Fastest note values:	eighth notes

LENTO

An internal logic can be seen in several *lento* examples as well. The modified *lento* tempos of the *Cantabile* and *Fantasia en ut* are identical, while the *lento* with no modifying word from the *Prélude, Fugue et Variation* is clearly proportionally slower.

*Cantabile*

Tempo indication:	<i>Non troppo lento</i>
Metronome marking:	♩ = 92
Meter:	C
Fastest note values:	eighth notes

*Fantasia en ut*

Tempo indication:	<i>Poco lento</i> and <i>Quasi lento</i>
Metronome marking:	♩ = 92
Meter:	C
Fastest note values:	eighth notes

*Prélude, Fugue et Variation*

Tempo indication:	<i>Lento</i>
Metronome marking:	♩ = 60
Meter:	C
Fastest note values:	eighth notes

### The broader logic

Of course, internal coherence is not enough: the metronome markings also need to make sense in relationship to all of the other tempi prescribed by Franck. For comparison, here are some tempo indications and their metronomizations from other works by Franck (source: [imslp.org](http://imslp.org) unless otherwise stated). They are sorted according to the hierarchy given by Matthis Lussy, slow, moderate, and fast (see table 2, p. 5).

#### Slow

Largo	40–60
Larghetto	60–72

#### Moderate

Andante	72–84
Andantino	84–120
(=Allegretto)	84–120)

#### Fast

Allegro	120–150
Presto	150–180
Prestissimo	180–208

#### SLOW TEMPOS

##### *Hymne*

Tempo indication:	<i>Molto lento</i>
Metronome marking:	♩ = 48
Meter:	6/8
Fastest note values–voice:	eighth notes

*Le Chasseur Maudit, 24–25*<sup>80</sup>

Tempo indication: *Molto lento*  
Metronome marking: ♩ = 66  
Meter: 3/4  
Fastest note values: sixteenth notes

*Le Chasseur Maudit, 26–27*

Tempo indication: *plus animé*  
Metronome marking: ♩ = 96  
Meter: 3/4  
Fastest note values: thirty-seconds

Aria from *Prélude, Aria et Final*

Tempo indication: *Lento*  
Metronome marking: ♩ = 52  
Meter: C alla breve  
Fastest note values: sixteenth notes

*Trio, op. 1, no. 3 (page 16)*

Tempo indication: *Adagio*  
Metronome marking: ♩ = 108 (thus ♩ = 54)  
Meter: "3"  
Fastest note values: eighth notes, sixteenths in the last part later in the piece at page 18

Tempo indication: *Quasi allegretto*  
Metronome marking: ♩ = 108 with the explicit note: "The eighth notes should have the same duration as the quarter notes in the preceding movement."<sup>81</sup>

80 Page numbers are from César Franck's version for piano four hands of *Le Chasseur Maudit, Poème Symphonique, pour Piano à Quatre mains* [sic] (Paris Léon Grus, 1884). Note: there is a version for two pianos by Pierre de Bréville.

81 "Il faut que les noires n'aient que la durée des croches du mouvement précédent."

*Rédemption, L'Archange*, p. 34<sup>82</sup>, second system

Tempo indication: *Lent*  
Metronome marking: ♩ = 63  
Meter: C  
Fastest note values: eighth notes

*Trio*, op. 1, no. 3, Final, p. 50

Tempo indication: *Poco lento*  
Metronome marking: ♩ = 63  
Meter: "4"  
Fastest note values: eighth notes (sixteenths as ornamentation)

*Rédemption, Introduction*, p. 1

Tempo indication: *Poco lento*  
Metronome marking: ♩ = 63  
Meter: C  
Fastest note values: eighth notes

*Rédemption, Récit Ah' malheur aux vaincus!*, p. 30

Tempo indication: *Poco lento*  
Metronome marking: ♩ = 63  
Meter: C  
Fastest note values: eighth notes

*Danse lente*

Tempo indication: *Quasi lento*  
Metronome marking: ♩ = 63  
Meter: C alla breve  
Fastest note values: sixteenths

82 Page numbers refer to César Franck's piano and song reduction of *Rédemption: Poème Symphonie* (Paris: Hartmann, [ca. 1882]), <https://babel.hathitrust.org/cgi/pt?id=uc1.c2821735&seq=5>.

*Trois petits riens*,<sup>83</sup> Le Songe, p. 18

Tempo indication: *Lentement*  
Metronome marking: ♩ = 72  
Meter: C  
Fastest note values: eighth notes

*Ruth*, p. 40, third system

Tempo indication: *Assez lent*  
Metronome marking: M.M. ♩ = 76  
Meter: C  
Fastest note values: eighth notes

*Messe à 3 Voix, Gloria, qui tollis*, “Cantabile”

Tempo indication: *Larghetto*  
Metronome marking: ♩ = 76  
Meter: 3  
Fastest note values: eighth-note triplets

This is only an insignificant deviation from Lussy’s scale (*Larghetto* 60–72).

*Ruth, Trio*, p. 20

Tempo indication: *Lento non troppo* “*ad libitum*”

second system

Tempo indication: “*Mesuré* ♩ = 84”

last system

Tempo indication: “*un peu plus lent*”

p. 21

Tempo indication: “1er Mouvement un peu animé”  
Metronome marking: ♩ = 92  
Meter: C  
Fastest note values voice: eighth notes (some arpeggios  
accompaniments in sixteenths)

83 César Franck, *Trois Petits Reins pour le Piano*, op. 16 (Köln: Verlag Dohr, 2016).



MODERATE TEMPOS

*Ballade* Op. 9, p. 3

Tempo indication: *Andante*  
Metronome marking: ♩ = 40  
(thus ♪ = 120)  
Meter: 6/8  
Fastest note values: eighth notes, some sixteenths in melody

*Ruth*, p. 35

Tempo indication: *Andante*  
Metronome marking: ♩ = 63  
Meter: C  
Fastest note values in voice: eighth notes

*Ruth*, p. 90

Tempo indication: *Andante*  
Metronome marking: ♪ = 104  
Meter: 6/8  
Fastest note values in voice: eighth notes

*Ruth*, p. 97

Tempo indication: *Andante*  
Metronome marking: ♪ = 104  
Meter: 6/8  
Fastest note values in voice: eighth notes

These examples show that the average value for the eighth note lies between 104 and 126.

*Ruth*, p. 10

Tempo indication: *Quasi andante*  
Metronome marking: ♩ = 69, no M.M. in autograph  
Meter: 2  
Fastest note values in voice: quarter notes

*Ruth*, p. 97, second staves

Tempo indication: *Quasi andante*  
Metronome marking: ♩ = 76  
Meter: 3/4  
Fastest note values in voice: eighth notes

*Rédemption, Air*, p. 106

Tempo indication: *Quasi andante*  
Metronome marking: ♩ = 48 at letter B “plus animé”  
M.M. ♩ = 69  
Meter: 3/4  
Fastest note values in voice: eighth-note triplets

*Trio*, op. 1 no. 1, p. 2

Tempo indication: *Andante con moto*  
Metronome marking: ♩ = 69  
Meter: 4/4  
Fastest note values: eighth-note triplets, sometimes sixteenth notes

*Ruth*, p. 48

Tempo indication: *Andante con moto*  
Metronome marking: ♩ = 96  
Meter: C  
Fastest note values: eighth notes  
The *Andante con moto* is clearly faster than the *Andante*.

*Messe à 3 Voix, Kyrie*, p. 1

Tempo indication: *Andantino*  
Metronome marking: ♩ = 84  
Meter: 3  
Fastest note values: eighth notes

*Trois petits riens, Duettino*, p. 7

Tempo indication: *Andantino*  
Metronome marking: ♩ = 88  
Meter: 3/4

*Ballade*, Op. 9, p. 1

Tempo indication: *Andantino*  
Metronome marking: ♩ = 72  
Meter: 6/8  
Fastest note values: eighth notes

*Trio*, op. 1, no. 2, p. 17

Tempo indication: *Andantino*  
Metronome marking: ♪ = 138  
Meter: 6/8  
Fastest note values: sixteenth notes

*Rédemption*, Choeur des Anges, p. 101

Tempo indication: *Andantino*  
Metronome marking: ♩ = 80  
Meter: C  
Fastest note values in voice: eighth notes

*Messe à 3 Voix*, Agnus Dei, p. 69

Tempo indication: *Andantino quasi andante*  
Metronome marking: ♩ = 72  
Meter: 3  
Fastest note values in the instrument and voice: eighth notes

*Le Chasseur Maudit*, p. 2–3

Tempo indication: *Andantino quasi allegretto*  
Metronome marking: ♩ = 104  
Meter: 3/4  
Fastest note values: eighth-note triplets, a few arpeggios in sixteenths

*Le Chasseur Maudit*, p. 6–7, second system

Tempo indication: *l'Istesso Tempo*  
Meter: 9/8  
Fastest note values: eighth notes, upbeats sixteenths

*Le Chasseur Maudit*, p. 6–7, letter B

Tempo indication:	<i>un poco piu animato</i>
Metronome marking:	♩ = 120
Meter	9/8
Fastest note values:	eighth notes, upbeats sixteenths

*Le Chasseur Maudit*, p. 18–19, fifth system

Tempo indication:	<i>un peu plus animé</i>
Metronome marking:	♩ = 126
Meter	9/8
Fastest note values:	sixteenth notes

*Le Chasseur*, p. 20–21, last system

Tempo indication:	<i>poco meno vivo</i>
Metronome marking:	♩ = 116
Meter	9/8
Fastest note values:	sixteenth notes

On the whole, these metronomizations fit the range given by Lussy.

*Ruth*, “Marche,” p. 28

Tempo indication:	<i>Allegretto</i>
Metronome marking:	♩ = 100
Meter:	C
Fastest note values in voice and instruments:	eighth notes

*Ruth*, “Chœur de moissonneurs,” p. 58

Tempo indication:	<i>Allegretto non troppo vivo</i>
Metronome marking:	♩ = 100
Meter:	2/4
Fastest note values in voice:	eighth notes

Perfectly logical, considering that 2/4 meter by definition is faster than C.

*Ruth*, “Récitatif et duo,” p. 73, second system

Tempo indication: *Allegretto non troppo*

Metronome marking: ♩ = 104

Meter: C

Fastest note values in voice: eighth notes

*Messe à 3 Voix*, Gloria, Quoniam, p. 23

Tempo indication: *Allegretto pomposo*

Metronome marking: ♩ = 144

Meter: 3

Fastest note values

in voice and instruments: quarter notes

This relatively fast tempo for the “Allegretto” makes sense considering the prevalence of quarter notes and the intended “finale effect” of the Gloria. Furthermore, the meter is notated as “3,” not 3/4, clearly indicating a fast tempo.

*Les Éolides*, orchestra version (Eulenburg), p. 1

Tempo indication: *Allegretto vivo*

Metronome marking: ♩ = 69

Meter: 3/8

Fastest note values: sixteenths

p. 32, m. 333

Tempo indication: *Un poco piu lento*

Metronome marking: none

Meter: 3/8

Fastest note values: eighth notes, some sixteenth upbeats

p. 37

Tempo indication: *Tempo primo*

Metronome marking: ♩ = 69

Meter: 3/8

Fastest note values: sixteenths

p. 47

Tempo indication: *Un poco piu lento*  
Metronome marking: ♩ = 63  
Meter: 3/8  
Fastest note values: eighth notes, some sixteenth upbeats

p. 52, m. 539

Tempo indication: *Tempo del inizio*  
Metronome marking: ♩ = 69  
Meter: 3/8  
Fastest note values: sixteenths

*Les Éolides*, transcription for 2 pianos, four hands, p. 3

Tempo indication: *Allegretto vivo*  
Metronome marking: ♩ = 84  
Meter: 3/8

p. 22, last system

Tempo indication: *un peu plus lent*  
Metronome marking: ♩ = 66

p. 25, last system

Tempo indication: *Mouvement du commencement*  
Metronome marking: ♩ = 84

The difference between the clearly faster *allegretto vivo* and the *piu lento* is more important in this piano arrangement by the composer: 84 to 66 instead of 69 to 63.

*Eglogue*, op. 3, p. 1

Tempo indication: *Allegretto quasi andantino*  
Metronome marking: ♩ = 84  
Meter: 3/4  
Fastest note values: eighth-note triplets

*Ruth*, Introduction, p. 2–3

Tempo indication: *Andantino poco allegretto*

Metronome marking: ♩ = 84

Meter: C

Fastest note values: eighth notes

*Ruth*, no. 10, p. 75

Tempo indication: *Andantino poco allegretto*

Metronome marking: ♩ = 96

Meter: C

Fastest note values in voice: eighth notes

*Ruth*, no. 1, p. 2–3

Tempo indication: *Andantino poco allegretto*

Metronome marking: ♩ = 84

Meter: C

Fastest note values in voice: eighth notes

All of these metronome markings agree with Lussy.

#### FAST TEMPOS

*Ruth*, no. 14, p. 102

Tempo indication: *Allegro*

Metronome marking: ♩ = 116

Meter: 2/4 for choir, “2” for piano in the printed edition, 2/4 for the piano in the manuscript

Fastest note values in voice: eighth notes

*Premier Grand Caprice*, p. 8

Tempo indication: *Allegro*

Metronome marking: ♩ = 152

Meter: 3/4

Fastest note values: sixteenth notes

*Quatrième Trio Concertant*, op. 2, p. 3

Tempo indication:	<i>Allegro</i>
Metronome marking:	♩ = 152
Meter:	C for the whole piece
Fastest note values:	eighth-note triplets for the whole piece. Some sixteenth upbeats

p. 4

Tempo indication:	<i>Più lento</i>
Metronome marking:	♩ = 88

p. 4, second system

Tempo indication:	<i>Più presto</i>
Metronome marking:	♩ = 152

The same transition occurs three times. With eighth-note triplets as the fastest note value, the choice of tempo indication is logical in relationship to the *Allegro molto* of the *Final* from *Prélude, Aria et Final*, discussed below.

*Trio*, op. 1, no. 3, p. 1

Tempo indication:	<i>Allegro</i>
Metronome marking:	♩ = 92
Meter:	C
Fastest note values:	eighth-note triplets

*Rédemption*, Choeur général, p. 112

Tempo indication:	<i>Allegro non troppo</i>
Metronome marking:	♩ = 138
Meter:	C
Fastest note values:	eighth-note triplets
Fastest note values in voice:	quarters with eighth-note upbeats

p. 122, second system

Tempo indication:	<i>un peu plus lentement</i>
Metronome marking:	♩ = 100
Meter:	C
Fastest note values:	eighth notes
Fastest note values in voice:	eighth notes



*Psalm 150*<sup>84</sup>

Tempo indication: *Poco allegro ma maestoso*  
Metronome marking: ♩ = 120  
Meter: C  
Fastest note values in voice: eighth notes

*Prélude, Aria et Final, Prélude, p. 2*

Tempo indication: *Allegro moderato e maestoso*  
Metronome marking: ♩ = 116  
Meter: C  
Fastest note values: eighth notes with sixteenth-note upbeats

*Trio, op. 1, no. 2, p. 2*

Tempo indication: *Allegro moderato*  
Metronome marking: ♩ = 126  
Meter: 4/4  
Fastest note values: sixteenth notes

*Trois petits riens, Valse, p. 11*

Tempo indication: *Modérément vite*  
Metronome marking: ♩ = 116  
Meter: 3/4

*Trio, op. 1, no. 1, p. 31*

Tempo indication: *Allegro maestoso*  
Metronome marking: ♩ = 112  
Meter: “2”  
Fastest note values: eighth notes

*Messe à 3 Voix, Credo, p. 46*

Tempo indication: *Allegro molto moderato e maestoso*  
Metronome marking: ♩ = 76  
Meter: C alla breve  
Fastest note values in voice: quarter notes

84 César Franck, *Psaume 150*, arrangement for organ and choir by Salomon Jadassohn (Leipzig: Breitkopf und Härtel, n.d. [1896]), <https://s9.imslp.org/files/imglnks/usimg/9/9c/IMSLP29761-PMLP66902-Franck-Psalm150.pdf>.

*Trio*, op. 1, no. 1, p. 14

Tempo indication: *Allegro molto*  
Metronome marking: ♩ = 112  
Meter: 3/4 (Peters edition)  
Fastest note values: eighth notes

*Trio*, op. 1, no. 2, p. 28

Tempo indication: *Allegro molto*  
Metronome marking: ♩ = 152  
Meter: 2/4  
Fastest note values: eighth-note triplets, broken chords  
in sixteenths

*Premier Grand Caprice*, p. 2, fourth system

Tempo indication: *Allegro molto accelerando e crescendo*  
*Forte con passione*  
Metronome marking: ♩ = 184  
Meter: 6/8  
Fastest note values: eighth notes

*Premier Grand Caprice*, p. 8, last system

Tempo indication: *Allegro*  
Metronome marking: ♩ = 152  
Meter: 3/4  
Fastest note values: sixteenth notes

*Le Chasseur Maudit*, p. 30–31, second system

Tempo indication: *Allegro molto*  
Metronome marking: ♩ = 152  
Meter: 3/4  
Fastest note values: sixteenth notes

*Le Chasseur Maudit*, p. 36–37, fifth system

Tempo indication: *Quasi presto*  
Metronome marking: ♩ = 168  
Meter: 2/4  
Fastest note values: sixteenths

*Les Djinns*, p. 2

Tempo indication: *Allegro molto*  
Metronome marking: ♩ = 160  
Meter: 2/4  
Fastest note values: sixteenth-note triplets

p. 20, second system

Tempo indication: *“Un temps vaut une mesure du mouvement précédent”*  
Metronome marking: none  
Meter: 3/4  
Fastest note values: sixteenth notes, thirty-second notes in the last measures before Tempo I

*Prélude, Aria et Final*, Final, p. 16

Tempo indication: *Allegro molto ed agitato*  
Metronome marking: ♩ = 88  
Meter: C  
Fastest note values: sixteenth notes

*Eglogue* op. 3, p. 11

Tempo indication: *Allegro fuocosso*  
Metronome marking: ♩ = 144  
Meter: 3/4  
Fastest note values: sixteenth notes

*Ruth, Récitatif et Air*, no. 6, p. 39

Tempo indication: *Animé*  
Metronome marking: ♩ = 168  
Meter: C  
Fastest note values: eighth notes (both in voice and orchestra)

*Rédemption L'Archange*, p. 34

Tempo indication: *Animé*  
Metronome marking: ♩ = 144  
Meter: C  
Fastest note values: eighth notes

*Ruth*, no. 6, p. 41, second system

Tempo indication: *Assez animé*  
Metronome marking: ♩ = 96  
Meter: 6/8  
Fastest note values in voice: eighth notes

*Rédemption, Chœur Terrestre*, no. 1, p. 6

Tempo indication: *Très animé*  
Metronome marking: ♩ = 160  
Meter: 6/8  
Fastest note values: eighth notes

p. 9

Tempo indication: *un peu moins animé*  
Metronome marking: ♩ = 144  
Meter: 6/8  
Fastest note values in voice: eighth notes

p. 13, second system

Tempo indication: *Un peu plus vite*  
Metronome marking: ♩ = 160  
Meter: 2/4  
Fastest note values in voice: eighth notes  
in instrument: sixteenth notes

p. 24, second system

Tempo indication: *Plus vite*  
Metronome marking: ♩ = 168  
Meter: 2/4  
Fastest note values in voice: eighth notes  
in instrument: sixteenth notes

p. 25, last system

Tempo indication: *Plus vite*  
Fastest note values in voice: eighth notes  
in instrument: sixteenth notes

p. 27, last system  
Tempo indication: *encore plus vite*  
Fastest note values in voice: quarter notes  
in instrument: sixteenth notes

*Prélude, Aria et Final*,<sup>85</sup> Final, p. 29

Tempo indication: *Animato*  
Metronome marking: ♩ = 108  
Meter: C  
Fastest note values: eighth-note triplets  
See also *Final* op. 21.

*Ballade*, p. 4, fourth system

Tempo indication: *Poco animato*  
Metronome marking: ♩ = 72  
Meter: 6/8  
Fastest note values: eighth notes

*Messe à 3 Voix*, Gloria, p. 8

Tempo indication: *Maestoso*  
Metronome marking: ♩ = 104  
Meter: C  
Fastest note values: eighths

*Ruth*, no. 11, p. 81

Tempo indication: *Maestoso*  
Metronome marking: ♩ = 76  
Meter: C  
Fastest note values in voice: eighths

*Ruth*, no. 15, p. 108

Tempo indication: *Maestoso*  
Metronome marking: ♩ = 66  
Meter: C  
Fastest note values in voice: eighths

85 César Franck, *Prélude, Aria et Final pour Piano*, ed. Joël-Marie Fauquet (Paris: Éditions musicales du Marais, 1990).

*Messe à 3 Voix, Credo, p. 35*

Tempo indication:	<i>Molto maestoso</i>
Metronome marking:	♩ = 42
Meter:	6/4
Fastest note values in voice:	quarters
Fastest note values in instr:	eighths

“et expecto”, p. 58

Tempo indication:	<i>1er Mouvement mais un peu plus large</i>
Metronome marking:	♩ = 40

*Messe à 3 Voix, Sanctus, p. 60*

Tempo indication:	<i>Molto maestoso quasi lento</i>
Meter:	C
Fastest note values in voice:	quarters
Fastest note values in instr:	sixteenths
(at “Hosanna”)	
Fastest note values in voice:	eighths & sixteenths

*Ruth, Récitatif et Air, no. 6, p. 40*

Tempo indication:	<i>Moderato</i>
Metronome marking:	♩ = 96
Meter:	C
Fastest note values:	eighth notes

*Premier Grand Caprice, p. 1, third system; p. 5, second system; p. 18*

Tempo indication:	<i>Moderato</i>
Metronome marking:	♩ = 96
Meter:	C
Fastest note values:	eighth notes

p. 22

Tempo indication:	<i>Tempo I. ma un poco animato</i>
Metronome marking:	♩ = 108
Meter:	C
Fastest note values:	sixteenth-note triplets

*Trio*, op. 1, no. 3, Final, p. 30, last system

Tempo indication: *Moderato ma molto energico*  
Metronome marking: ♩ = 126  
Meter: "4"  
Fastest note values: eighths and sixteenths

p. 40

Tempo indication: *Il doppio piu lento*  
Metronome marking: ♩ = 126  
Meter: 3/2

*Il doppio piu lento* means the half note equals the quarter note of the first section, resulting in 6 ticks in a measure instead of 4.

p. 42, third system

Tempo indication: *Tempo I°*  
Metronome marking: ♩ = 126  
Meter: "4"  
Fastest note values: eighths and sixteenths

This same tempo switch occurs one more time on the last page.

#### OTHER TEMPOS

*Ruth*, no. 7, p. 45

Tempo indication: *"Mouvement de la Marche"*  
Metronome marking: ♩ = 100  
Meter: C  
Fastest note values: eighth notes

*Trio*, op. 1, no. 2, p. 23

Tempo indication: *"Tempo di minuetto"*  
Metronome marking: ♩ = 112  
Meter: "3"  
Fastest note values: eighth notes

*Rédemption*, Choeur, Récit et Air de l'Archange, p. 34

Tempo indication: "Animé"

Metronome marking: ♩ = 144

Meter C

Fastest note values in voices: eighth notes

On page 37, at letter M, it says "un peu plus lent que le chœur des anges."

There are no metronome marks, but Franck writes in a letter of March 4, 1888 to Sylvain Dupuis:<sup>86</sup>

Here are the metronome settings for the two songs: ...

Air de Rédemption page 37...

Les rois dont vous vantez etc. ♩ = 84

One should move on in the orchestral section on page 40.

Later for "la terre a tressailli d'une extase profonde" the quarter note should be more or less = 112.<sup>87</sup>

### Additional indications and points of correspondence

We have no objective, verifiable historical information to tie the metronome markings notated by Franck to any particular durations for the pieces in question. In only a few, exceptional instances did Franck indicate the durations of his pieces. These timings deviate substantially from the way the pieces are usually performed – they presume a faster tempo – and their relevance, like that of the metronome markings for the organ works, is disputed. Let us, however, try the following thought experiment – merely by way of a parenthesis, and without seeking to reach any final conclusions.

<sup>86</sup> The organiser of a Franck concert in Liège, on Sunday March 19, 1888. Franck confuses the date of his letter with the date of the concert. The letter probably arrived too late, the arrival date stamped on the letter is "19 mars, 1888."

<sup>87</sup> «... Voici les mouvements au métronome des deux numéros de chant ... Air de Rédemption page 37 ...Les rois dont vous vantez etc. noire = 84... On peut animer un peu la partie orchestrale qui (est) page 40. Puis pour = la terre a tressailli d'une extase profonde = on peut prendre à peu près noire = 112. Joël-Marie Fauquet, ed., *César Franck, Correspondance* (Liège: Mardaga, 1999), 183.



### *The case of Psyché*

Joël-Marie Fauquet has provided durations notated by Franck for several parts of the symphonic poem *Psyché*, set down by him in the unorchestrated score.<sup>88</sup> The existence of these timings has been known since 1950.<sup>89</sup> Fauquet, however, was able to verify their correctness directly against the manuscript score.<sup>90</sup>

Franck also provided Tempo indications for the movements of *Psyché*, but no metronome marks. By matching the Italian terms and meters with metronome marks elsewhere in Franck's oeuvre, however we can calculate estimated durations for the movements of *Psyché* and check those calculations against durations Franck actually indicated. In the list below, I give the following information for each movement: the title and Franck's timings ("minutage"); the notated tempo indication and meter; a suggested metronome marking; and finally the calculated duration, and references to other works by Franck to support the suggested metronome marking.

#### *1 Le sommeil de Psyché*<sup>91</sup>

Tempo indication:	lento
Metronome marking:	♩ = 112
Meter:	6/8
Duration:	ca. 360 sec. (6:00)

88 Fauquet, *César Franck*, 704.

89 See Léon Vallas, *La véritable Histoire de César Franck: 1822-1890* (Paris: Flammarion, 1950).

90 Personal communication from Joël-Marie Fauquet: "During my research I have verified them with the aid of Franck's manuscript (private collection). They match exactly." ("A l'époque de mes recherches je les avais vérifiés sur le manuscrit de Franck [collection privée]. Ils sont exacts.")

91 I do not indicate the fastest note value since it doesn't have any influence or meaning on the duration of a piece.

Compare with *Hymne, Le Chasseur Maudit* (page 25); *Trio*, op. 1, no. 1 (Adagio).  
*2 Psyché enlevée par les zéphyr*

Tempo indication: *allegro vivo*  
Metronome marking: ♩ = ca. 69  
Meter: 3/8  
Duration: 117 sec. (2:00)

There is no other 3/8 “allegro vivo” to compare with, but there is an “allegretto vivo”: in *Les Éolides* orchestral version M.M. 69, piano version M.M. 84; see above.

### *3 Les jardins d'Eros*

Tempo indication: *poco animato, un peu plus large, lento*  
Metronome marking: ♩ = 132  
Meter: ”2”  
Duration 243 sec. (4:00)

See *Ruth*, no. 6, Final.

### *4 Psyché et Eros (Amour, elle a connu ton nom)*

Tempo indication: *allegretto modéré*  
Metronome marking: ♩ = ca. 104  
Meter: 3/4  
Duration: 385 sec. (6:25)

See *Ruth*, nos. 4, 9, 10.

Franck also notes “en tout 24 minutes”; thus, the 4 first movements have the duration of 18:30, plus 5:30 for the *Souffrances et plaintes de Psyché*.

### *The duration of Prélude, Choral et Fugue*

In a letter from the late 1880s to an unknown recipient, Franck writes:

I offer you a new work for solo piano which will be shorter than the sonate, will not emmeasure you, and which my cousin Mlle. Cécile Monvel should be able to interpret very well. The piece is entitled Prélude Choral et Fugue; in spite of the austere title it does very well with an audience [...] The work is 13 minutes long.<sup>92</sup>

<sup>92</sup> Fauquet, *Franck, Correspondence*, 175: “Je vous propose une oeuvre de piano seul qui sera moins longue que la sonate, qui ne vous donnera aucun embarras et qui sera

We can carry out the same experiment here, matching Franck's tempo indications with metronome markings from other pieces. Given the large number of unknown factors this is a delicate enterprise and chancier than the last one, but the result is nonetheless telling:

*Prélude*: 57 measures

Tempo indication:	<i>Moderato</i>
Metronome marking:	♩ = 96
Meter:	C
Duration:	2:20

Compare with

*Ruth*, no. 6

Tempo indication:	<i>Moderato</i>
Metronome marking:	♩ = 96
Meter:	C

and

*Premier Grand Caprice*, page 1

Tempo indication:	<i>Moderato</i>
Metronome marking:	♩ = 96
Meter:	C

*Choral*: 59 measures

Tempo indication:	<i>poco piu lento</i>
Metronome marking:	♩ = 84
Duration:	2:50

*Fugue*: 265 measures

Tempo indication:	<i>poco allegro</i>
Metronome marking:	♩ = 126
Duration:	8:30

absolument bien interprétée par ma cousine Mlle Cécile Monvel. Cette pièce est intitulée Prélude Choral et Fugue, mais malgré l'austérité du titre elle porte vraiment sur le public [...] Cette oeuvre dure 13 minutes."

Compare with

*Trio*, op. 1, no. 2

Tempo indication:

*Allegro moderato*

Metronome marking:

♩ = 126

Meter:

4/4

Total time 13:30

These exercises in calculation are quite uncertain, of course, and cannot lead to any really firm conclusions. It does seem, however, that applying the metronome markings from other pieces in Franck's output can produce durations for these works quite close to the "minutages" set down by Franck.

## Final Thoughts

### *The relationship between Tempo indications and metronome markings*

Franck's metronomizations display great internal consistency. With a few exceptions, the way he pairs metronome markings and Italian terms fully conforms with contemporary practice as described by theorists such as Lussy. The metronome markings in the organ works, especially, display broad agreement with these norms.

### *Adding nuance with adjectives*

One striking feature of Franck's Tempo indications is his habit of adding an adjective or adverb to qualify the primary term. These qualifiers may pertain either to the tempo itself, helping to define it more narrowly, or to the intended character of the piece. In Franck's music, in other words, the Italian tempo headings can indicate two things: the tempo and the character.

First of all, modifiers such as "poco," "non troppo," and "quasi", which can be prefixed to slow tempi ("adagio," "lento") or fast tempi ("allegro"), communicate an adjustment to the main categories, a refinement of them. The examples listed above demonstrate that prefixes of this kind are reflected in Franck's metronome markings (when these exist).

Second, suffixed modifiers can modify the character of the music and thus the manner of performance. Examples include:

allegretto cantando (*Fantaisie in C major*)

allegro maestoso (*Final*)

andantino serio (*Grande Pièce Symphonique*)

andantino sostenuto (*Prière*)

None of these "extra" words are superfluous. Taking the *Fantaisie* as an example, the tempo allegretto normally suggests a light, not too serious character. To avoid this effect, and realize a more singing feeling, the addition of cantando is a necessary one. An addition such as *scherzando* or *leggiero* would have pushed the character of the piece in a different direction (in addition to being a little unnecessary).<sup>93</sup>

<sup>93</sup> Nota bene: the M.M. = 104 is perhaps the only exception to a literal (one-tick) reading of the figures. In light of what I said in Part I about 2/4 meter – that is, that it has four beats – it is likely that in this case the M.M. = 104 should be applied to the eighth note. In my 1999 recording (Ricerca, 207402 RIC 192, 1999, compact disc) I failed to take this into account.

Another example: in the *Final*, *Allegro maestoso* means that the piece must be played both fast and with a stately character. For both terms, contemporary norms allowed some scope for interpretation, but not an infinite range of possibilities: no matter what metronome marking Franck notated, *Allegro* always means fast. The stateliness of the term *maestoso*, meanwhile, is best expressed through a controlled sound, not exaggeratedly brilliant”or *galant*. In this particular example, the direction *maestoso* will surely affect the use of staccato in certain passages: preventing the organist from being too light-footed in the pedal solo, for example, or articulating passages in longer note values too playfully. It will affect many other performance decisions as well.

The first movement of the *Grande Pièce Symphonique* is marked *Andantino serioso*: in the context of the nineteenth-century hierarchy of tempi, this is a light walking speed, but with a serious affect. The *andantino* tempo, in combination with the syncopated rhythms, could easily lead the left hand into an affected style of accompaniment, jeopardizing the desired *serioso*, symphonic effect. The chords in the left hand, therefore, should not be too detached, and the melody in the right hand must sound serious; in this case that means *legato*, without any worldly *portato* or other mannered articulation.

Similarly, in the *Prière*, the modifier *sostenuto* helps to define the length of the quarter and eighth notes. *Andantino* alone would probably imply a more detached articulation, lending an unwanted character to the eighth notes, especially, in particular on the upbeats.

We find a similar principle at work in the *Variations Symphoniques*, as well, where the tempi are indicated above the staff in bold letters, using the familiar Italian terms: *Poco Allegro*, *Poco piú lento*, *Allegro*, *Molto piú lento* and *Un pochettino ritenuto*. The character is usually indicated in italics: *Espress. ad lib.*, *Espressivo*, *Recitando*, *Passionato*, *Molto teneramente*, *con fantasia* (see the Premier Choral), *Espressivo con simplicità*, *Dolce*, *Espressivo sempre legatissimo*, *Dolce rubato*, etc.

We observe the same thing in Franck’s violin sonata,<sup>94</sup> and with more nuance in *Les Béatitudes*:<sup>95</sup> here the tempo indications are often refined with adjectives, but they are tempo adjectives as a rule, not character indications. The frequent use of *non troppo lento* is particularly striking.

94 César Franck, *Sonate pour piano et violon ou violoncelle* (Paris: J. Hamelle, n.d. [1887]), [https://s9.imslp.org/files/imglnks/usimg/d/da/IMSLP122520-PMLP04994-Franck\\_-\\_Sonata\\_\(Delsart\)\\_for\\_cello\\_and\\_piano\\_in\\_A\\_major\\_score.pdf](https://s9.imslp.org/files/imglnks/usimg/d/da/IMSLP122520-PMLP04994-Franck_-_Sonata_(Delsart)_for_cello_and_piano_in_A_major_score.pdf).

95 César Franck, *Les Béatitudes* (Paris: P. Maquet, n.d. [ca.1894]), [https://s9.imslp.org/files/imglnks/usimg/9/98/IMSLP527740-PMLP4945-Beatitudes\\_score\\_color\\_1-4.pdf](https://s9.imslp.org/files/imglnks/usimg/9/98/IMSLP527740-PMLP4945-Beatitudes_score_color_1-4.pdf)

## *Implications for performance*

### *Legato*

It goes without saying that Franck's metronome markings are irreconcilable with the dogma of absolute legato. In fact, they clearly indicate that Franck's performance style was based on a kind of *legato approximatif*—a very negative name for what we could describe in more positive terms as a finely judged and sophisticated shaping of musical tone. The rule of absolute legato was promulgated after Franck's time, and an absolute legato can never achieve the rich dynamic tapestry that can be produced by subtly differentiating the length of the notes. It is also important to recognize that any organist before Widor would have been a pianist first, and would have prepared his organ performances on the piano or pedal piano.

The literature on this topic often refers to the fingerings and pedaling that Franck devised for the *École Nationale des Jeunes Aveugles*. These fingerings not only bear witness to Franck's sophisticated playing technique, but also to the fact that this repertoire demanded a performance style adapted to the musical context, and above all a flexible approach to legato. In no way are the fingerings proof that Franck adhered to the dogma of *legato absolu* in performing his own works.

### *Tempo flexibility*

Respecting Franck's original metronome marks does not necessarily imply following the metronome slavishly (something I discussed in Part 1 of this article). In other words, we can accept without reservation the dictum of Charles Tournemire: "Strictly following the movement of the metronome would be heresy and absolutely at odds with Franck's intentions. We affirm this resolutely. There should be no discussion on this point."<sup>96</sup> The musical result is a globally flexible tempo, something in complete accordance with the theoreticians of Franck's time. Thus it is no surprise that Tournemire also provides various metronome markings as guidelines: in the first and second parts of the *3ème Choral*, for instance, he gives ♩ = 100 for the quarter note and ♪ = 76 for the eighth note, respectively,<sup>97</sup> although the score calls for double tempo with the notation "le double plus vite."

96 Charles Tournemire, *César Franck* (Paris: Librairie Delagrave, 1931), 35.

97 Tournemire, *César Franck*, 35.

### *The classic counter-arguments*

One sometimes hears that Franck would have been unable to execute his works at the tempi indicated, because of his “limited technique.” There is, however, no real evidence that his technique was “limited.” In fact, the opposite seems to be true. Franck was a strong enough performer, at least, to be invited to play for a number of prominent organ inaugurations, prestigious proceedings where he appeared alongside some of the most celebrated virtuosos of the day.<sup>98</sup> The *Variations Symphoniques* was in his performance repertoire; he made a great impression on Liszt; he was asked to supply pedalings and fingerings for great works by J.S. Bach; and he initiated the project to write a pedal part for the *Well-Tempered Clavier*. Franck’s pedal technique in particular is occasionally questioned. It has been argued, for instance, that the Pleyel-Wolff pedal piano he ordered in 1858 (and paid for in monthly instalments) was meant to help remedy his poor pedalling. The instrument undoubtedly helped to improve his technique, but there is no reason to suppose the technique was not good to begin with.<sup>99</sup>

The pedal parts of Franck’s great organ works are entirely on a par with those of other organ composers of the period; indeed, the pedal parts in the *Six Pièces* are frankly superior to other contemporary compositions. The pedal parts only become easy to play if the pieces are played slowly – and then the manual parts become perhaps even easier. It is important to recognize here the extent to which the controversial style of Charles-Marie Widor, head of the Paris Conservatoire from 1890, shaped later Franck reception.

Widor took over the Conservatoire from Franck, but to continue the work of such an extraordinary figure as Franck is never easy. Setting a new course, and discarding the achievements and practices of one’s predecessors, can be a more successful strategy. Widor, in any case, preferred a change of course to continuing in Franck’s footsteps. Looking back to his student years with Lemmens, who had died several years before, he emphasized performance over improvisation and Lemmens’s famous organ technique – as, indeed, he had also done at Saint-Sulpice, as the successor to Lefébure-Wely. Certainly these circumstances do not diminish my esteem for the organist Widor, but they do provide an important background for many claims and ideas that are current today. In any case, Widor could probably never have

98 See also *Revue et Gazette Musicale de Paris* 1869, 101 (Inauguration de la Trinité), and below in this section.

99 Fauquet, *Franck, Correspondance*, 62.



accepted a “fast” Franck while remaining true to his own ideals and those of his teacher Lemmens.

We might also recall that Alkan, in 1867, dedicated his highly demanding *11 Grands Préludes pour Piano à clavier de pédales* Op. 66 “to his colleague César-Auguste Franck.” These pieces demand a much more advanced technique than the one Widor and Guilmant learned from Lemmens in the early 1860s.

It is sometimes claimed that Franck (a professional pianist-composer and professor at the Paris Conservatoire!) did not know how to use a metronome, or how to replace the weight properly if it slid off the pendulum – assuming replacing it incorrectly was even physically possible. The *nec plus ultra* is the suggestion that Franck thought in double metronome beats, and so his metronomizations must be read at half tempo.<sup>100</sup> This would have the interesting consequence that the *Grande Pièce Symphonique* would last a good 45 minutes,<sup>101</sup> with an Allegretto (Scherzo) in which two sixteenths (the fastest note value) correspond to a beat of 120. The *Prière* and the *Final* would last almost 20 minutes each. The performance of the *Six Pièces* would take about two hours and 20 minutes, not including registration breaks. Applying the same principle to, say, *Ruth* or the *Messe à 3 voix* would seem the pinnacle of absurdity.

### The “Franck tradition”

The interpretation of Franck’s organ works presents no great problems as long as we rely on firsthand informants or contemporary sources. The notion that there is a “difficulty” springs solely from Franck’s received image as a “Pater Seraphicus”: an image which was constructed posthumously, and in parallel with changes in organ music and associated performance techniques in the Catholic Church in the late nineteenth century.

100 Henrico Stewen, “César Franck’s Mysteriously High Metronome Marks,” *The Organ* 88, no. 5 (2009): 18ff.

101 Louis Vierne indicates in *Souvenirs, Cahiers et Mémoires de l’Orgue* no. 3 (Paris: Les Amis de l’Orgue, 1970): “as one of us remarked to Widor, the piece lasted twenty-six minutes at its true tempo” (“comme l’un de nous faisait observer à Widor que la pièce durant vingt-six minutes dans le mouvement réel, ...”). “Twenty-six” is a very specific number and we may assume that it indeed reflects the accepted tempo at the time, including the demanding register changes. Vierne does not say “at Franck’s tempo” but “at its true tempo,” so the exact meaning remains unclear.

After his death, Franck assumed an almost mystical aura of angelic delicacy. This was reflected in tempo choices for his music that evoked a sense of eternity, paired with an absolute legato where the organ retained, as Widor would have put it, a perfect tranquility. This image of Franck was manufactured in the period after Franck's death and went hand in hand with the evolution of organ music in France.

When Charles-Marie Widor took over the organ class at the Conservatoire, the curriculum changed drastically. Less space was given to improvisation, and more to the performance of composed music. A playing style was introduced that reflected the most modern ideas about performance. These ideas, in turn, represented the culmination of a long process, and they paralleled changing views about church music in general. The most important point for our purposes is that Widor established new norms for true, authentic organ music.

Widor recorded his ideas in the editions of his organ symphonies of 1887 and 1901.<sup>102</sup> His vision of the organ was linked to late nineteenth-century philosophical and religious thought, and specifically to the ideal of transcendence. The organ and organ playing had to liberate themselves from everything human, i.e. the imperfect. There was no space in organ music for the expression of sensuous human sentiments, thus no call for strong accents, passionate crescendos, or over-excited agogics. All these were replaced by a musical architecture that featured clear, straight lines, like the contours of the great cathedrals: "The great voice of the organ should have the calm of things *définitive*."<sup>103</sup> Now the word "Orgue" was written in capitals, as befitted an instrument worthy of the Supreme Being. The organ transcended the earthly realm, making the organist a medium between this world and the next.

Franck had to be recruited into this new order, and all his works that did not conform were resolutely pushed aside. The *Pièces posthumes* and the *Andantino*, along with *L'Organiste* (for harmonium), are good examples. These pieces, written in the organ style of the mid-nineteenth century, were a poor fit for the idiom of the "Pater Seraphicus."

102 Charles-Marie Widor, "Avant Propos," in *Symphonies pour Orgue* (Paris: Ma-ho-Hamelle, 1887).

103 "La grande voix de l'orgue doit avoir le calme des choses *définitives*." Charles-Marie Widor, *Technique de l'Orchestre moderne, faisant suite au Traité d'Instrumentation et d'Orchestration de H. Berlioz* (Paris: Lemoine, 1925), 188.

Thirty-six years after Franck's death, Guilmant wrote:

Are not some modern pieces often played too fast, even today? A piece such as César Franck's *Prélude, Fugue et Variation* is often played *Allegro* although Franck merely marked it *Andantino cantabile*! This kind of virtuosity is misplaced. The author did not want the piece to be executed like this. The tempo was approximately: dotted quarter 52 for the *Prélude* and the *Variation*, and 72 for the *Fugue*.<sup>104</sup>

But this statement does not prove that Franck really taught those tempi: Guilmant could only have gotten his information at second- or third-hand. What it does prove is that some people still played "fast" – perhaps like Franck! But that information did not in the least accord with the new ideology of the organ. Charles Tournemire (who, not coincidentally, composed a piece entitled *L'Orgue Mystique*) tried the same kind of thing in his editions of Franck, in which he revised Franck's performance directions and sometimes even the music itself, in order to create the proper transcendental mystique.

This revisionist interpretation of Franck stands in stark contrast to the documented facts about the tempi Franck himself wanted, and the kind of performance those tempi produced. Regrettably, there are few or no sources from Franck's time that say anything specific about his organ playing. In the entire body of Franck's correspondence, there is almost nothing to indicate that he ever departed from the normal brilliant playing style of his contemporaries, such as Lefébure-Wely or Saint-Saëns, to name two examples *par excellence*.<sup>105</sup> There is also nothing to suggest that Franck would have performed his own works in anything but the manner he himself prescribed. An important source is the review of the inauguration of the Cavaillé-Coll organ in the Église de la Sainte-Trinité in 1869.

104 "Même, de nos jours, n'arrive-t-il pas que des morceaux modernes sont joués souvent trop vite? Une pièce comme *Prélude, Fugue et Variation* de César Franck est souvent jouée *Allegro*, alors que l'auteur a simplement marqué *Andantino cantabile*! C'est de la virtuosité déplacée. L'auteur ne le faisait pas exécuter ainsi; le mouvement était environ: noire pointée 52 pour le *Prélude et la Variation*, et 72 pour la *Fugue*." Alexandre Guilmant, "La Musique d'Orgue," in *Encyclopédie de la Musique et Dictionnaire du Conservatoire*, ed. Albert Lavignac, vol. 2 (Paris: Librairie Delagrave, 1921), 1170. My thanks to Annelies Focquaert for drawing my attention to this passage.

105 Fauquet, *César Franck Correspondance*, 1999.

In addition to the intriguing information it contains about the interests of the publishers, composers, and theatres who all wanted to profit from the event, the text also reviews the organists – Widor, Saint-Saëns, Durand and Franck:

Mr. César Franck from Sainte-Clotilde [played] a vigorous, thoroughly worked out improvisation in which he sought to throw as many sonorities as possible into sharp relief.<sup>106</sup>

The French “vigoureuse” means forceful, strong, energetic; certainly not slow or languid. “Mettre en relief le plus grand nombre possible” implies a colorful and varied approach, and surely not the “calm of things *definitive*”!

Doubts regarding the received image of Franck arose as early as 1930. I quote Joël-Marie Fauquet:

In his *La musique française de piano* (1930-I, page 65), Alfred Cortot, too, refuses to subscribe to the somewhat biased legend of a mystical César Franck, a kind of Pater Seraphicus lost in an immaterial dream, illuminated by that ecstatic and contemplative piety that liberates us from contingencies and delivers us from unimportant realities. The nobility of Franck’s life, which is inseparable from the beauty of his works, resulted from the fact that he did *not* underestimate reality, nor make light of the insecurity

106 “M. César Franck, de Sainte-Clotilde, une improvisation vigoureuse, bien développée, où il a cherché à mettre en relief le plus grand nombre possible de sonorités.” “Inauguration de la Trinité,” *Revue et Gazette Musicale de Paris* 1869, 101. Because this article mentions so many interesting figures, I will reproduce the entire paragraph: “Les autres organistes conviés à prendre part à cette cérémonie, en faisant valoir les nombreuses ressources de l’instrument, se sont fait entendre dans l’ordre suivant: M. Henri Fissot, de Saint-Merri, a joué une Méditation religieuse, sobre d’effets, mais d’une grande sérénité et d’un beau caractère; M. Ch. M. Widor, de Lyon, un andante et un scherzo où il a déployé une très-grande habileté technique; M. Saint-Saëns, de la Madeleine, une bénédiction nuptiale, morceau de peu d’effet et de peu d’idées, ce n’est pas cependant que l’auteur soit à court d’ordinaire; M. Auguste Durand, une Fantaisie Pastorale où les réminiscences tenaient trop de place ; M. César Franck, de Sainte-Clotilde, une Improvisation vigoureuse, bien développée, où il a cherché à mettre en relief le plus grand nombre possible de sonorités. Plusieurs chœurs et soli, chantés par MM. Bollaert, Marié, Grisy, etc. alternaient avec l’orgue. Enfin M. Chauvet a terminé la cérémonie par une brillante sortie en forme de marche, à laquelle il a préludé par le motif de l’Offertoire prohibé à l’église et accaparé par le théâtre; protestation ingénieuse qui a eu l’assentiment général.”

of human existence, but he did not yield to these things. And though they could sometimes be acute and tyrannical, he did not allow them to rob his soul of the lively flame of his enthusiasm nor diminish his passionate respect for music.<sup>107</sup>

It was not possible for the builders of Franck's "mystical" image to find evidence in historical sources, because there isn't any. Instead they had to evoke "testimonies" from after Franck's death. The name of Vincent d'Indy comes to mind here; d'Indy was instrumental in the formation of the Franck "tradition," both through his music editions and his biography of Franck. Yet in 1895, Georges Franck writes of d'Indy:

You speak to me of the "devoted student" [d'Indy].<sup>108</sup> It is time to put an end to this self-serving legend. I know very well that it is, by now, not as harmful as it was in 1890 and 1891 [i.e. directly after Franck's death]; but it is ridiculous! Properly spoken, Mr. X [d'Indy] was never the student of my father. He passed through the organ class, no more. Like all young composers of that time, he did indeed occasionally ask César Franck for advice, and he presented himself with other composers, and especially the students of my father, at the salon at Boulevard Saint-Michel. Then as soon as my father died, he called himself the "favorite student"!!<sup>109</sup>

D'Indy was never shy about communicating his personal vision of Franck. 107 "Alfred Cortot qui, dans *La musique française de piano* (1930-I, p. 65), ne souscrit pas non plus à la légende toute faite et quelque peu tendancieuse d'un César Franck mystique, sorte de Pater Seraphicus perdu dans un rêve immatériel, illuminé de cette piété extatique et contemplative qui libère des contingences et délivre des négligeables réalités. La noblesse de la vie de Franck, indissoluble de la beauté de son œuvre, est précisément de n'avoir ni méconnu la réalité, ni méprisé les contingences humaines, mais de ne point leur avoir cédé. Et, pour immédiates et tyranniques qu'elles fussent parfois, de ne pas leur avoir permis de voiler en son âme la flamme vivifiante de l'enthousiasme, ni d'affaiblir en lui de respect passionné de la musique." Fauquet, *César Franck*, 714.

108 The addressee is Louis de Fourcaud (1853–1914), author of, among others, the story for *Psyché*.

109 In a letter from Georges Franck to Louis de Fourcaud, December 28, 1895: "Vous me parlez de "l'élève dévoué". Il est temps que cette légende intéressée prenne fin. -Je sais bien qu'elle ne peut plus à cette heure être nuisible comme elle l'a été en 1890 et 1891; mais, c'est ridicule! Mr. X n'a jamais été à proprement parler, l'élève de mon père. Il n'a fait que passer dans la classe d'orgue. Il a demandé de temps à autre des conseils à César Franck comme tous les jeunes compositeurs de ce temps et a défilé souvent avec eux, surtout avec les élèves de mon père dans le salon du boulevard Saint-Michel. Mon père mort, il s'est intitulé "l'élève préféré"!!" Fauquet, *Franck Correspondance*, 265.

In particular, his downplaying of Franck's compositions before the *Six Pièces* (both organ and church music) helped shape the image of Franck in the twentieth century. He brushed aside everything reminiscent of the brilliant style of the period of the Second Empire. His actions fit into a larger contemporary framework and an ideology that held "musique pure" in the highest esteem.<sup>110</sup> It is beyond the scope of this article to discuss this topic in depth, but we might recall his position that there existed "two categories...we might even say two separate kinds of art...Symphonic Music and Dramatic Music." The first he viewed as "pure" music and the second as an "application" of music to text, to words. In "pure" music, therefore, expression is set aside, while it still plays a major role in in text-based music. "Musique pure" rejects worldly elements, strong expression or exaggerated tempi: the very characteristics that Widor wanted to ban from organ music. This kind of "pure music," according to d'Indy, is religious by its very nature:

In fact, the guiding principle of all *free art* is, indisputably, religious faith. Without *Faith* there is no Art. And thus the idea of Art appears before us, from it's beginning, permanently connected to the religious vision, to the adoration or worship of the divine.<sup>111</sup>

It was necessary to make César Franck fit this picture, and so his music was re-cast as essentially religious music. One of the consequences for performance was that the tempo changed: music for the church had to have "the calm of things *definitive*," as Widor so neatly put it. Such music was slow by definition, not for acoustical reasons, but for ideological ones (other criteria were form, rhythm, and harmony). The divide between church and concert hall was thus also reflected in a clear adjustment to the choice of tempo.

The *Six Pièces* and the *Trois Pièces* are concert music: extroverted, brilliant, fresh, virtuosic, and energetic, even if some critics in Franck's own time labeled Franck's music "serious." He *was* serious: his musical structures are carefully crafted and he often used fugato developments, to name just a few weighty elements in his music. But the titles of the pieces – *Fantaisie*, *Pastorale*, *Final*, *Pièce Héroïque* – tell the story: this is not religious music. Not

110 Vincent d'Indy, vol. 2 of *Cours de Composition Musicale*, ed. Auguste Sérieyx, 4th ed. (Paris Durand et Fils., 1948), 5ff.  
111 "En effet, le principe de tout *art libre* est incontestablement la foi religieuse. Sans la *Foi*, il n'est point d'Art. L'idée de l'Art nous apparaît donc, dès l'origine, indissolublement liée à l'idée religieuse, à l'adoration ou au culte divin." d'Indy, vol. 1 of *Cours de Composition*, 10–11.

even the *Prière* is inherently religious; that genre appeared both in concert music and in music for the liturgy. The *Trois Chorals* are concert pieces too. A “Choral” has no function in the Catholic liturgy; it is a genre, a compositional technique.<sup>112</sup>

This distinction between worldly music and church music is essential to understanding nineteenth-century French organ culture, and Franck in particular. I hope that my arguments here can help place Franck and his music in a more correct framework, even if they collide with some current thinking. I understand that there is little point in trying to use logical arguments to change beliefs. To this truth our time, perhaps more than any time in the past, bears frightening witness. We know more about physical, biological, psychological mechanisms than ever before, but to all such knowledge, and contradictory beliefs remain impervious; nor can any other beliefs sway them.

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112 For the same reason, a chorale could appear in an organ symphony, for instance by Widor or Vierne.

## Appendix A: Notes on the Recordings

Choice of the organ: Lemmens's *Trois Sonates* and *Four Organ Pieces in the Free Style* were composed and edited during his time in England. The registrations are indicated for an English organ with three manuals and pedal. The 1871 Willis Organ in Örgryte New Church in Gothenburg matches the music perfectly.

Practicing: I practiced in a way that seems to be the most obvious for a nineteenth-century organist, that means, at the pedal piano. Practicing at the organ was limited to a few hours before the recording, in order to keep the probable conditions of a nineteenth-century performance while at the same time preserving the touch and feeling from my practice time at the piano. I did not feel the need to adapt the touch. It goes without saying this had some consequences for *legato* and *staccato*, the length and the attack of notes and chords, and the synchronization of left and right hand and pedal.

Tempi: For detailed information on the interpretation of the metronome markings I refer to the text. I used the metronome in the way described. That means the tempo is set by using the metronome before starting a piece, and not playing through with the metronome ticking. The consequence is that the basic tempo will fluctuate according to the nineteenth century practice to adapt the tempo during the piece. In this context indications like *animato* and *con fuoco* are taken into account, and at the same time those indications influence the basic tempo of the piece when returning to the initial tempo.

Registration: Specific registrations are respected. Dynamic changes indicated with *piano*, *forte*, etc., are achieved by using the preset combinations of the Willis organ. Doing so, all changes are made without help from an assistant. The noise of those manipulations is sometimes audible, just like it would have been one hundred and fifty years ago.

Sound balance, recording, editing by the author.

### *List of Video Files*

Video\_1\_Verdin.mp4

Video\_2\_Verdin.mp4

Video\_3\_Verdin.mp4



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