

GOLD MEDAL

AT THE INTERNATIONAL EXHIBITION OF SCIENCE AND ART PARIS 1886.

150965

E. DELLE SEDIE

VOCAL ART

PART I.



NEW-YORK
G. Schirmer 35 Union Square
1890

diam's will

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PREFACE

When I had the honour of being professor of singing in the Paris Conservatory of music and declamation, the much to be regretted neglect that many young persons destined for the stage had of this study, inspired me with the idea of collecting in a small manual, the most important rules of the Lyric school based on ancient principles. My object was to awaken in some and develop in others, the taste and respect of old traditions, which have created many eminent artists. The decay of the lyric art, of which we often complain, is in my idea, more to be attributed to the oblivion of these traditions than to the want of interpreters possessing the necessary vocal means to render worthily the works of the old masters.

The apparent facility with which little exercised pupils can execute certain pieces of modern music, the effects of which are exclusively due to the care the composer has taken to leave nothing to the initiative of the artist, has created among them the grievous illusion that the art of singing is exclusively instinctive and that the natural qualities of their vocal instrument suffice to audaciouly interpret the works of the great masters. This is the reason why the most talented amongst them pass from the stage like so many meteors, leaving no trace behind them, and obtaining no other result than that of wrongly directing the taste of the public.

So I set to work, but I perceived before long, that I could not attain my object without giving numerous explanations taken from the discoveries of modern physiology.

I then abandoned my first idea and undertook a more considerable work: a *Treatise on Singing and Lyric declamation*. With the exception of some improvements of which my experience has shown me the value, and excepting also a few new expressions, this treatise, does not differ in any point from the principles of the old School from which I have never deviated, and I have no other pretension than to open a way where those more competent may follow and complete my modest work; thus raising the long neglected lyric art to higher perfection.

The lyric art requires from the artist special physical and intellectual qualities, a good education, a profound musical knowledge, an agreeable appearance and a sympathetic and sufficiently extended vocal organ; a flexible and homogeneous voice, with a good extension is seldom heard, unless it has been carefully conducted and cultivated. In order to be able to govern the inflections of the voice in singing as easily as in speaking, we must know and be able to determine the anatomical conditions of the vocal instrument, its mechanism and the physical phenomena producing the sonority of the vocal sound.

To attain this object in as exact and authentic manner as possible I have solicited and obtained from D. Mandl an anatomo-physiological description of the human voice as an *Introduction* to this work. In the *preliminaries* I expose some general remarks on the singing voice.

In the first Lesson, I treat of the manner of attacking the vocal sound, according to the principles already explained.

The human voice is divided into two or three series of sounds, the different timbres of which differ in sonority or in nature; these series are called registers.

A clever singer must overcome this irregularity of the scale by a great deal of practice.

Up to the present time the means which have been employed, while fatiguing the voice, have given but uncertain results.

While exercising my professorship, I often met with voices either fatigued or of an unequal timbre, and in order to correct them I found (in basing myself on the experiments of physics with regard to the vocal sound) a quicker and safer means and one leading more surely to the desired end. I treat of this, in the Lessons II, III and IV.

In the Lesson V, I call the attention of the pupil to the study of the formation of the vowels, for every isolated sound being a vowel, it results that in order to make the voice equal and homogeneous, it is indispensable to look for the intermediary vowel in each sound; this permits the sound to find its harmonic sonority in the buccal cavity. This study being very important, I recommend it to the careful attention of the pupil, for it brings about and facilitates the fusion of the registers, mentioned in the Lesson VI; it also

E. Delle Sedie, Part I

helps to conduct the intervals with concord and homogeneity (1) and facilitates the study of agility (2). But the possession of purely mechanical agility is not enough for the artist, and I shall develop the tendencies and application in the Lesson XIII.

Here stop my observations with regard to the means to be employed for the formation development and flexibility of the voice, however before passing to studies of a superior order viz; those of expression and sentiment, I thought it indispensable to draw the attention of the pupil to the defects we find in the different voices, so that he may beware of them or correct them, and to teach him how he might even in certain cases make use of these very defects to give the inflection required by the expression of the word or idea (3).

From the Lesson XV, I try to guide the pupil in the analytical study of the different expressions of words and sentiment combined with music; I first establish the principles of this study (4) and then go on to its practical application: firstly by vocalizing exercises, the melodious and simple music of which, may serve for every kind of interpretation and to which I add divers sentiments expressed in a complex manner (5) secondly by some of RIGHINI'S vocalizing exercises which borrow their expression from analyzed verses (6). This study is very important, for by a physiological analysis of the sentiment, it gives free development to the pupils natural expression.

This way of developing the sentiment of pupils belongs to the old school and I only expose in writing what our old masters made us practise by tradition.

After the study of sentiment and the idea which forms it expressed by the vowels, which permit an easier rendering of the inflections I pass to the study of articulation, which is a powerful auxiliary to singing; for a clear and correct articulation facilitates the expression and gives a greater vibration to the voice. I therefore thought it necessary to enter into a few details on the formation of the consonants by the organs of articulation (7) and afterwardes speak about articulation and prosody, giving examples for correcting the faults of prosody which are sometimes found in music written for singing (8). After carefully classifying the different kinds of declamation, I have given some general notions on gestures and stage deportment (9).

Then basing myself on the principle that vocal and instrumental music is subjected to the laws of imitation, I make a few observations about the manner in which one must execute it, with regard to the orchestra as well as with regard to the voice in concerted pieces and in music of different styles (10). After initiating the pupil into the practice of the studies required for declamation, I mention the principal kinds of recitatives; the recitative being the real declaimed part in the lyric drama requires a careful and correct execution of tone and accent (11).

Before giving a few examples of those pieces analyzed which will most help the pupil in his studies (12), I thought it best to give a rapid and general sketch of music, in order to convince him of the necessity of studying its different epochs and styles so as to be more capable of a proper interpretation (13). For the rules to be followed in placing the cadences and ornaments of melody, I refer the pupil to the treatise on melody by Reicha and will only give the most important points (14). I thought it unecessary to include in my work new exercises with the exception of those which are indispensable for demonstrating my ideas, and as we already possess many excellent exercises, I think new ones would be superfluous; those of the authors I indicate, are within the reach of every-body.

I conclude with some little advice to young professors of singing so that they may profit by my experience and unceasing study. My object in thus disposing this work, has been to form the education of the lyric artist by the most pratical, the most regular and at the same time the easiest method.

I do not know whether I have succeeded; but notwithstanding all the care and diligence spent on this work, I do not pretend to impose my ideas and convictions, nor to have pronounced the final word on a subject so fruitful and so eminently scientific. My greatest desire and only aim are to add my humble part to this great art.

E. Delle Sedie.

⁽¹⁾ See Lesson VII.

⁽²⁾ See from the Lesson VIII to the XII.

⁽³⁾ See Lesson XIV.

⁽⁴⁾ See Lesson XV.

⁽⁵⁾ See Lesson XVI.

⁽⁸⁾ See Lesson XVII.

⁽⁷⁾ See Lesson XVIII.

⁽⁸⁾ See Lesson XIX.
(9) See Lesson XX.

⁽¹⁰⁾ See Lesson XXI.

⁽¹¹⁾ See Lesson XXII.

⁽¹²⁾ See Lesson XXIII.

⁽¹³⁾ See Lesson XXIV.

⁽¹⁴⁾ See Lesson XXV.

INTRODUCTION

OF THE MECHANISM OF THE VOICE

The voice is a sound formed by particular organs, which when united constitute the vocal instrument. Every artist must possess some indispensable knowledge of the construction and mechanism of the instrument he makes use of. Why should it not be so for the singer? Has not the ignorance of these elementary gifts often been the cause of the loss of a fine voice, when more has been demanded of the instrument than it could give.

M. Delle Sedie has thought it necessary to have his Treatise on the Vocal Art preceded by a short account of the principal facts in connection with the mechanism of the voice.

So as to render more exactly and intelligibly these different explanations, I have thought it best to begin with the anatomical part, that is to say with the description of the different organs composing the vocal instrument, and afterwards to examine their action in the production of the voice, which is the physiological part, terminating with a few remarks on exercise which concerns the health of the voice.

A. ANATOMY. DESCRIPTION OF THE VOCAL INSTRUMENT (1).

The vocal instrument is composed of the larynx, the pharynx with its neighboring cavities, and of the lungs.

The numbers and letters between parenthesis correspond to the plate.

I. OF THE LARYNX.

The Larynx (A) is placed in the fore and mean part of the neck; its shape is that of an almost triangular box, the projection of which constitutes in man the so called Adam's apple, and is open above and below, thus allowing a constant passage of air. This permanent opening is secured by the two lateral resisting walls, formed by cartilages. The inner part is covered with a mucous membrane and presents two horizontal folds, the vocal lips (1), generally called vocal chords. They move in opposite directions and by their tension, length and thickness produce the various sounds.

The epiglottis (2) is a cover fixed at the upper opening of the larynx which, while lowering itself, during the deglutition, prevents the food from passing into the cavity of the larynx.

The opening between the lips, which renders possible the passage of the air, is called *glottis* (fig. II, gl.). The vocal chords are drawn together or lowered by the arytenoide cartilages (fig. II, ar.); they are covered by two mucous folds, called *false vocal chords* (f).

2. The Pharynx and it's neighboring cavities.

The *Pharynx* (B) is a hollow placed behind the oral cavity; its general form is that of a flattened funnel, its wide base is directed towards the upper part; its orifice when narrowed, meets the larynx and the

⁽¹⁾ Here we shall only give some of the most indispensable details.

A more complete description will be found in most treatises on anatomy, particulary in our: Traité des maladies du Larynx et du Pharynx. Paris, 1872 with 7 tables engraved and coloured, and 164 inserted illustrations.

œsophagus (C). Its dimensions are subject to great changes depending on the age, sex and ordinary development, and on the extreme mobility of the larynx and its soft parts in the oral cavity (D).

Three cavities communicate with the pharynx; viz: the larynx, the oral cavity and the nostrils.

The shape of the oral cavity is that of an oval box. We distinguish a fore opening, the mouth; a fore wall formed by the lips (3) and the dental arches (4), two lateral walls formed by the dental arches and the jaws, a lower wall formed mostly by the tongue (5); an upper wall, called palatine vault (6); and a back movable wall formed by the veil of the palate (7) from the middle of which hangs the uvula, which has a tonsil at each side of it's base (9). The opening, edged by the veil of the palate and the root of the tongue, establishes the communication between the oral cavity and the pharynx: this is called the isthmus of the windpipe.

The cavities of the nose (E) are formed of three passages which terminate in the openings called nostrils; there are the fore ones and the back ones; the latter communicate with the pharynx. These openings communicate inside the nose with other cavities situated in the bones of the head.

3. Of the Lungs.

The lower extremity of the larynx communicates with the *trachea* (F) which divides itself into *bron-chials* (G), the last ramifications of which constitute the spongy tissue of the two lungs (H).

These organs are placed in the bony box of the thorax, which is composed of the ribs, the collar bone and the vertebral column. They rest on the *midriff* (diaphragm) (1) the great horizontal muscle forming a wall between the thoracic cage and the bowels.

B. PHYSIOLOGY. PRODUCTION OF THE VOICE.

To understand better the production of the voice we shall speak of the general qualities of sound, then study the production of sound in musical instruments and finally examine the functions of the different parts of the vocal instrument.

1. OF SOUND.

All sounds, including the voice, are produced by the vibrations of a solid or a gaseous body and have three essential characters; viz: intensity (strength or weakness), height (acuity or gravity) and timbre. Intensity depends on the strength of the initial shock and the elasticity of the vibrating body; sound has more or less height according to the number of the vibrations; the fundamental sound together with the sounds called partial or harmonic (1) and the accessory noises, such as the rubbing of the bow etc. determine the timbre which help us to distinguish the sounds of the same height, according to how they are produced. We may add a fourth character, time which depends on the duration of the initial shock.

2. OF MUSICAL INSTRUMENTS.

Physical and physiological inquiries have shown that the vocal instrument acts in the same way as wind instruments, when furnished with a reed. To draw the conclusion in which we are interested, we must examine separately each part in those instruments which acts.

They are three in number; viz:

- a) The bellows through which the current of air passes, is the moving element.
- b) The reed, the vibrations of which produce the sound.
- c) The resounding body or sonorous tube, which reinforces the fundamental sound by the harmonics. When a solid body is shaken, we hear its own sound; but we may hear also the sound of the bodies that are near, if it is identical to that of the vibrating body, or, if it is one of its harmonics. Thus the sound becomes reinforced.

⁽¹⁾ If we study attentively and with precision the sound of the thick chord of a piano or a violoncello, we hear not only the fundamental sound, the height of which depends on the duration of the vibration, but also a whole series of higher and weaker sounds, called partial or harmonic sounds which embrace the higher octave of the fundamental sound, the fifth of that octave, the second octave, the third major of that octave etc.

3. OF THE VOCAL INSTRUMENT

In the vocal instrument, we distinguish three elements; viz:

- a) The lungs and the trachea with the bronchials which represent the bellows and the wind pipe.
- b) The vocal lips, double like those of the reed of an oboe.
- c) The pharynx with its neighbouring cavities forming the resounding body.

We shall now study separately the action of each organ, which will enable us to establish a theory for the production of the voice.

§ I. Lungs. Force and Duration of Sound.

The lungs with the trachea and the bronchials, fill the place of the bellows and the wind pipe in accomplishing the respiration. This function includes two acts which continually succeed each other; viz: the inspiration, allowing the air to enter into the lungs, and the expiration which furnishes the current of air, that is to say, the moving element, necessary to put the vocal lips in motion.

The expiration must be effected so as to furnish, without fatigue, the quantity of air necessary for the emission of the sound; upon this depend its force and duration. In declaiming or singing, we should not be able to phrase, or swell a sound if we did not know how to manage the air in slackening the action of the agents which act during the expiration. This slackening of the expiration is what we call resting the voice on a certain part of the thorax. All the attention of the artist must therefore be directed to the least fatiguing way of expiration. Now this depends on the manner in which the inspiration has been made; for according to what part of the lungs has been filled with air, it will be more or less easy to control this air. The inspiration may be effected in three different ways: the lungs may be dilated at their base, by the contraction of the midriff, or in their middle part laterally displacing the ribs, or again at their upper end by raising the collar-bone and the shoulders. This last way constitutes the clavicular respiration and is the most fatiguing, because the great number of the long and muscular parts, raised during the inspiration are inclined to return to their former places as soon as they are left at rest, and it requires a great effort to keep them in their raised position; the exertion swells the veins and the muscles of the neck, the voice becomes choked, the difficult inspiration thus producing the so called dramatic hiccup. It is quite different with the abdominal respiration, which is effected by the contraction of the diaphragm and causes only the displacement of the intestines.

§ 2. VOCAL LIPS. HEIGHT OF THE VOCAL SOUND.

The height of the vocal sound depends on the number of vibrations executed by the vocal lips in a given time. Now this number is exclusively determined by the protraction of the vocal lips, and their length and width. This has been proved in man by the application of a small mirror, called *laryngoscope*, to the back of the throat. The circumstances are variable according to the contraction of the muscles placed inside the larynx

The raising and lowering of the larynx does not exercise any influence on the height of the sound. The variable positions depend on the movements executed by the tongue. When we withdraw the tongue, the larynx is necessarily lowered, but it rises when the tongue is put forward (¹). This displacing of the tongue influences the timbre, but never the height of the sound.

§ 3. PHARYNX. TIMBRE OF THE VOCAL SOUND.

The difference of the timbre depends on the accessory sounds and on the number and intensity of the harmonics determined by the shape and quality of the resounding box, represented in the vocal instrument by the pharynx and the neighbouring cavities. The resonance varies according to the elasticity, dimension contraction, etc. of the organic elements composing the pharynx and determining the qualities of the voice in each individual. These elements must therefore be studied with great attention. It is the configuration

⁽¹⁾ The ignorance of this fact, which was exposed for the first time in our Traité des maladies du larynx § 261, 289 etc. has been the cause of the many mistakes found in several methods of singing.

given to the pharynx which forms the vowel, as in the tube with a reed mounted in an instrument, the opening of which, varying at will gives the sound of the vowels O, A, E (1) and the veiled or clear timbre. In the veiled timbre, the vowel O predominates, while the A characterizes the clear timbre.

§ 4. THEORY OF THE VOICE.

The glottis acts like the reed and produces sounds of different heights. The cavities of the pharynx form the sonorous tube, the variation of the shape of which infinitely modifies the timbre of the sound emitted by the glottis. The lungs and the trachea represent the bellows and the windpipe and determine the intensity by the force of the current of air, their natural sound reinforces the sound produced by the glottis in the same manner as a resounding box would, and consequently influences the timbre.

C. EXERCISE.

The vocal organs must act in a way to avoid fatigue and deterioration to any of its elements. We have already said how the respiration must be effected with regard to the force and duration of the sound. The abuse or exaggeration of a timbre provokes sore throat, angina granulosa etc. without mentioning the bad result it has on the voice.

The action of the vocal lips, which determines the height of sound may by its prolongation fatigue the voice if we shriek instead of singing, and thus it will become unsteady or hoarse. We consider therefore certain exercises in the teaching of singing as indispensable, such as exercises for the different muscles acting in the respiration, in the emission of the voice, in the configuration of the pharynx and in the position of the body, which the pupil must master in order that the mechanism may facilitate instead of preventing the emission of sounds. We shall collect all these exercises under the name of *Vocal Gymnastics*.

DOCTOR LOUIS MANDL.

EXPLANATION OF THE PLATE

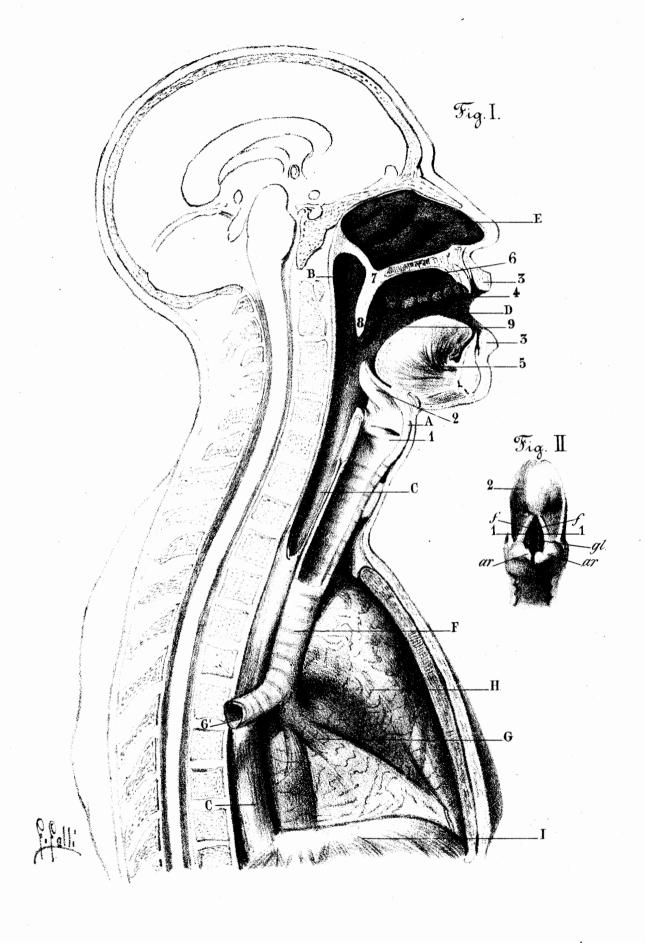
Fig. I. PROFILE OF THE LEFT SIDE OF THE HEAD AND THORAX.

Fig. II. THE LARYNX AS SEEN FROM ABOVE.

VOCAL LIPS.
 EPIGLOTTIS.
 ARYTENOÏD CARTILAGE.
 FALSE VOCAL CHORDS.

DIAPHRAGM.

⁽¹⁾ The vowels A, E, I, O, U, must be pronounced in Italian viz: Ah, Eh, Ee, Oh, Oo.



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PRELIMINARIES

GENERAL RULES FOR SINGERS

1. OF RESPIRATION.

The art of singing depends on knowing how to breathe well. This is what made the old Italian masters say that singing is the *Scuola del Respiro* (School of Breathing). In this way they wrote opera *Recitativo* which is a poem recited on slow and measured musical rhythm; the artist had to introduce in his singing all the inflections of ordinary declamation, while managing his breath in a way to develop his sentiments completely without altering the fulness of the melody.

The first and most essential condition for singing correctly; is to know how to regulate our breath. In the introduction of this work § I, Lungs, force etc. D. Mandl shows with great clearness, the action of the breathing apparatus and the way to direct the breath with facility; so that it is useless to add that breathing must be executed steadily in order to avoid all shocks hurtful to the vocal sound. To avoid the respiration being noisy, we must commence without precipitation the movement of the inspiration before the expiration terminates. To manage the respiration well a certain quantity of air should always be kept in the lungs at a pressure which varies according to the intensity of the vocal sound. Consequently the forte requires a pressure of increasing intensity and the piano of decreasing intensity.

2. OF THE VOICE.

The general extension of the human voice is about two octaves and comprises sounds of different timbres divided into three categories: the so called chest sounds, the medium sounds and the head sounds. The grave sounds, called chest notes reach in their highest limit, the category of sounds which have neither been qualified as chest or head sounds. We conclude that this medium category partakes of the other two divisions, and its sounds are consequently formed of mixed timbres which serve as a connecting link between the two extreme divisions; so we must apply ourselves especially to the development of this medium category in order to arrive at the others more easily.

The scale of sounds, considered as vowels, offers to the ear of the attentive observer a peculiar phenomenon by which we may profit in order to render the timbres homogeneous. The different sounds composing the scale present a perceptible gradation of timbres or intermediary vowels which may be defined as follows. The grave sounds during their vibration, give a timbre which approaches the vowel A somewhat broad,

this A gets gradually sombre while going towards the higher notes, up to ; at the vowel begins to get more open, while at approaches the vowel O and the gives an O appreciable to the least exercised ear; the begins to enter the region of the french EU and the completes the timbre of that vowel; the while conserving this last vowel, tends towards E and as the voice is raised towards the

acute sounds it develops still more this last vowel, these shades are considered beginning from the vowel A, but we also meet them in exercising with any other vowel. By following with this system the diatonic scale and regulating the respiration, as before mentioned, it will be easier to obtain more equality of volume and intensity, without being obliged to force the respiration.

From the preceding demonstration, it is clear that by exercising the voice in the limits of the 10th or of the 12th of the scale beginning from the lowest note one can emit without effort we shall strengthen logically the medium of the voice, on which base depends the development of its entire extension, and in this register melody is generally sung.

3. Of the emission of the voice.

The emission of the voice is controlled according to the manner in which the respiration is regulated; in fact how could one sustain the current of air which vibrates the lips of the glottis if the pressure of air were not kept equal and costant in the wind pipe of the trachea. The sound must first of all be impelled towards the palate, the pharynx with its neighboring cavities being the real resounding box of the

vocal instrument. Moreover the reinforcing body must change in dimensions according to the note emitted in order to harmonize immediately with it and vibrate in unison; thence results the necessity of studying the vowel corresponding to each sound. The quantity of air in this additional tube in proportion to the sound given must continue its sympathetic vibrations as long as the said sound lasts, and remain invariable in its volume, for it is clear that the current of air which puts the vocal chords in motion must undulate in unison with the vibrations of these in the resounding tube we have mentioned above. We may be sure of having attained this intent when, so to say the mouth is felt to be full of sound; we must be careful however not to force the respiration the result of which would be to alter the timbre and the homogeneity of the sounds.

We must attack the vocal chords resolutely with a slight expiration producing a dry sound of the vowel A; and as soon as the sound is produced, slacken the movement of expiration as much as possible but without tension, allowing the column of air in the pharynx and its cavities to vibrate freely and at the same time steadily, this air which gradually frees itself gives to the note emitted all its sonority and timbre.

In an uninterrupted succession of sounds we must bring the notes well together being careful to not let the air escape between them and thus prevent a jerking agility, which would produce the effect of a burst of laughter.

4. OF TIMBRE.

Timbre depends on the different forms given to the pharynx and the oral cavity, it exacts a minute study of the various configurations of the said cavity.

The *mouth* must be smiling, but the corners must not be drawn back too far, and it must be neither too round nor too oval, because in either case the voice vould sound smothered and render the vowels confused.

The jaws must be moderately separated; if the distance between them be too wide, the pharynx closes so diminishing the vibrations of the sound, if on the contrary it be too small the voice becomes choked and guttural. The lower jaw must not be held stiffly or the voice will lose all its softness and flexibility.

The tongue must be kept flat for if it be enlarged at its base, the emission of the sound becomes uncertain and smothered or nasal; if the extremity of the tongue rises towards the palate, the voice thrown towards the throat, becomes choked and guttural; if the middle part of the tongue be raised it may produce a whining sound, or the voice will be likely to break so interrupting its continuity and produce that disagreeable effect called in Italian STECCA.

The uvula must rise with the veil of the palate according to the height of the sound.

The *lips* must not jut out too much or the sound will become veiled; neither must they be pressed to closely against teeth.

5. ATTITUDE.

The body must be erect in order to allow a free development of the chest. A violent gesture, for instance of the arm far from, facilitating the emission of a high note as is often supposed, only gives a hurtful shock to the breathing apparatus and is detrimental to the sound itself.

The *head* must remain in its natural position so as to allow the throat to open freely. The contraction produced by stretching out the neck in the high notes, would make the voice guttural and suffocated.

GENERAL OBSERVATIONS.

While the vocal reed vibrates on all the notes of the scale, the different organs and cavities, of which we have spoken, contract or expand in order to furnish a continually varying number of harmonics to the initial sound which taken all together produce an equal variety of timbres. These timbres, which are vowels, are subject to numberless modifications, each vowel has the emission of the note particularly sympathetic to it, and also the privilege of reinforcing it by augmenting its fulness to the detriment of, the others; but the artist who wishes to equalize and unite all the vowels to all the notes, must exercise with each vowel successively and separately. Besides the uniformity of resonance acquired by exercise, the voice will easily assume different shades and timbres, according to the sentiment we wish to express.

The two principal timbres are the clear timbre and the sombre timbre.

When we employ the first, the larynx rises towards the veil of the palate which descends. The vowel issues clear and open; this timbre is generally used for the emission of the voice in the *pianissimo*, or for the expression of hatred, but its exaggeration renders the voice screechy and gives it a weak and whining sound.

It is necessary to observe that if the veil of the palate is lowered while the base of the tongue is raised towards the palate, the sound will be divided into two parts and one passing through the nostrils will give the voice a guttural and nasal timbre very disagreeable to the ear.

In the sombre timbre the larynx is lowered by the movement of the tongue, and the veil of the palate rises then the vowel is closed, with this timbre we obtain full and round sounds and the emission of the high sounds is made easier, but its exaggeration renders the voice smothered and hoarse.

These two shades of the voice may be modified by means of the vowels. The pupil will perceive in the following pages of how much advantage the fusion of these two timbres will be.

FIRST LESSON

ATTACK OF SOUNDS.

Sounds must be freely attacked, by a slight expiration of compressed air, avoiding any inferior appogiatura so that the air thus put in motion may act freely in the cavities.

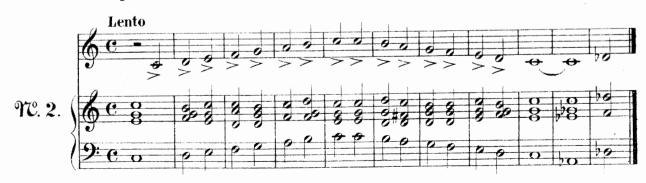
The pupil can practise in an under tone being careful not to hum, which deprives the organ of its energy, one must be equally careful to not try and change the nature of the voice nor to force it by giving an exaggerated impulsion to the respiration.

The object of the following exercises is to give sureness in attacking sounds.



This exercise must be continued to the highest note that can be given naturally and without effort, then the pupil may descend chromatically.

The following scale is to be executed in the same way.



SECOND LESSON

BLENDING OF THE REGISTERS

1 st Part

OF THE DECRESCENDO

We have shown in the preliminaries that each isolated sound is a vowel and that its timbre varies according to the number and intensity of the harmonics it contains, so we may admit that the sounds of the human voice are subject to the laws of harmonics (1) the character of the fundamental note depends on the shape of the mouth and on the pressure of air against the glottis; in the *forte* the fundamental note dominates so much over the other harmonics that they become almost indeterminable to the ear. In the *piano* on the contrary its intensity diminishes and the other harmonics reappear.

As the sound which is the octave of the fundamental note is the most distinct to the ear, it seems that the decrescendo ascends an octave. A study based on the decrescendo must consequently lead the pupil to make the sounds differently timbred equal.

We must execute the following exercise by attacking the sound as mentioned in the Lesson I, arriving at the resonance of the higher octave by the decrescendo only, as the pressure of air is stronger for the forte, it must be slightly diminished for the decrescendo.

The pupil in emitting the note, may strike it on the piano so that the voice may be guided by the natural effect of the vibration of the chord. In order to facilitate the execution of the decrescendo the intermediary vowels are here employed, as is indicated under the first notes of this exercise, to avoid a too notable change in the position of the lips while passing from \hat{A} to A, EU and \hat{E} and to unite the timbres as much as possible.

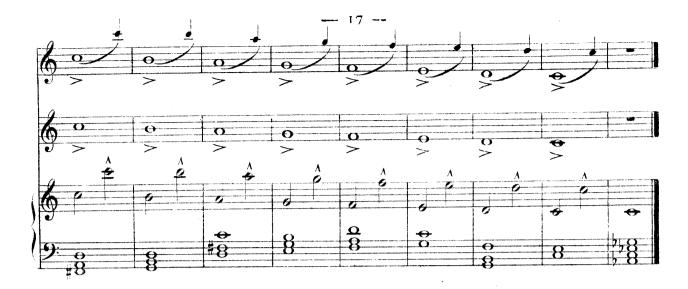


(1) The human voice is generally divided into several series of consecutive sounds, called registers, which are known by their timbre. The great difficulty has always been to blend these registers so there might be no solution of continuity in the timbre. To attain that object, we base this study on the decrescendo conserving the registers with the denominations by which they are generally distinguished, in order to make our idea more comprehensible.

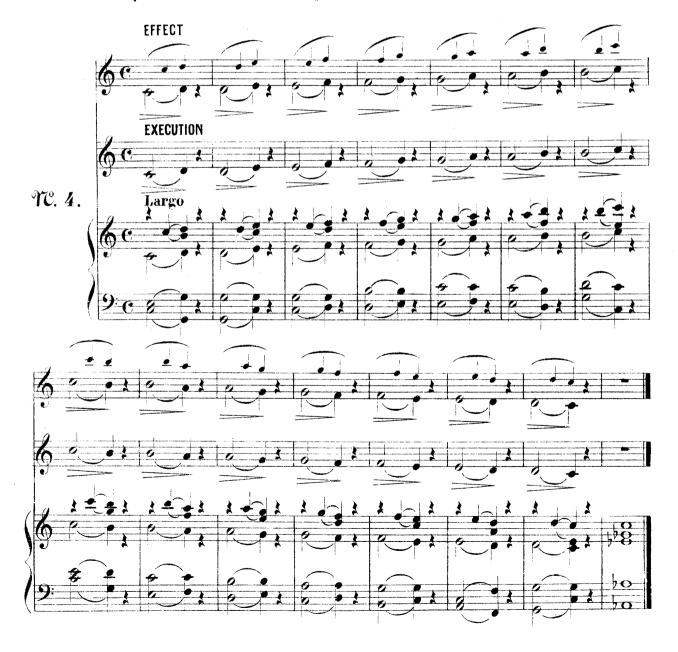
DENOMINATION OF THE REGISTERS

- 15t CHEST VOICE
- 2 MEDIUM VOICE
- 3 HEAD VOICE OR FALSETTO.

We think it is useless to mention their limits, for we wish to blend them progressively by the natural laws of harmonics



After acquiring a satisfactory execution in every tone by a chromatic progression of the exercise No. 3; we shall pass to the next one being careful to carry the first sound, by decrescendo, on to the second which must only be emitted at the end of the pianissimo.



For the following exercise, the same, system is to be employed, always conserving the resonance of the higher octave.



THIRD LESSON

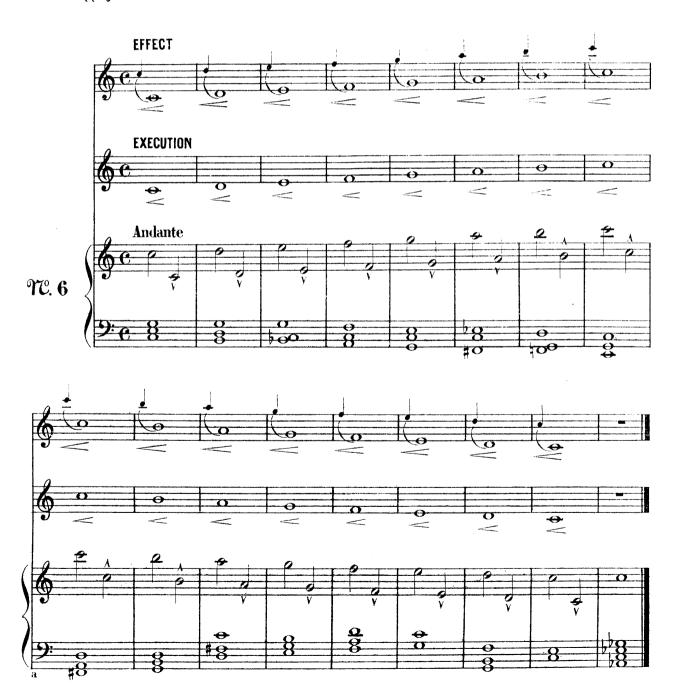
BLENDING OF THE REGISTERS

2 PART.

OF THE CRESCENDO.

Here we shall proceed reversing the system employed to obtain the *decrescendo*, in order to arrive at the *crescendo* by the resonance of the lower octave. We attack the first note of each measure with the *pianissimo* which is to say with the resonance of the higher octave to come gradually to the *forte* by the resonance of the lower octave. The pressure of air must augment naturally and without effort, for the exagerate of this pressure would render the voice heavy and destroy all its flexibility.

We may practise in an under-tone keeping the crescendo within the limits of from the pianissimo to the mezzo forte.





FOURTH LESSON

BLENDING OF THE REGISTERS

3ª PART.

OF THE CRESCENDO AND OF THE DECRESCENDO.

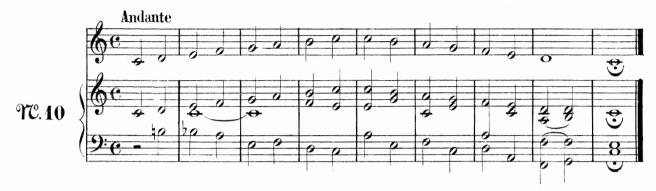
After having successively employed the resonance of the higher and of the lower octaves we must put the two systems into practice alternately.

To this effect we shall execute the following exercises in all the tones by chromatic progression being careful to bind the sounds well together.



E. Delle Sedie Part 1

In the following exercise, the pupil must make the low notes resound at the higher octave, and the high notes at the lower octave; thus he will obtain the homogeneity of the sounds.



The swelled sounds are the application of the *decrescendo* and of the *crescendo* on one note only; the voice being already prepared by the preceding studies will not be subject to any more fatigue, and so avoid the effort caused by a too strong pressure of air.

We must tie the sounds without slurring them, and it is here again that by the resonance of the octave we obtain this effect. For the present we must forbid the slurred sounds; later on they may serve to express contempt, menace or concentrated hatred.

We shall them make use of the *decrescendo* to tie a sound from the *forte* to the *piano* and of the *crescendo* for the contrary; thus passing lightly and steadily when we arrive at the *mezzo* forte to the note to be tied. By this same system we must carry and accent sounds.



The exercises A and B follow (see Appendix page 79.)

The pupil must now practise the first 25 Vocalizzi of Concone's 50 singing lessons for the medium voice. We insert the first one here with the indications for the shades corresponding to the studies we have made; it will serve the pupil as an example for others. These vocal exercises may be sung in the original tone for all except Barytone and Base voices.

When the character of the pupils voice obliges him to transpose the vocal exercises which we indicate we recommend him to do so in a manner to exercise particularly the *medium* notes for when these are sure the high and the low notes are acquired almost naturally.

CONCONE'S 1" VOCAL EXERCISE



FIFTH LESSON

OF THE VOWELS. (1)

We have already said that each sound has a vowel particularly sympathetic to it which contains the harmonics necessary to give it its entire volume, when speaking of this phenomenon we recommended the pupil to vocalize on all the vowels, but we spoke then of the five principal vowels only, these being the starting point of many intermediary vowels which we naturally pass in going from one to an other.

Among these intermediary vowels, we must seek until we find that one which agrees best with the sound to be emitted $(^2)$ as A, E, I, O, U have a fixed resonance. $(^3)$ These intermediary vowels are formed by means of the modifications of which the oral cavity is susceptible. In order to facilitate for the pupil the way of finding these vowels, we give here a study of the theories of the most authorized physiologists. According to these theories, the sounds A, I, U, are the three principal emissions; $(^4)$ the other sounds derive from these and blend with them by distinct intermediary gradations. For the vowel A, the vocal organs are in their most natural position; so this vowel must come before the others and serve for their correct emission.

When once this sound is emitted, we do not change the position of the Larynx, and we come to the U, the I and the french U by modificatious of the oral cavity, going through several intermediaries which we divide into three classes. (5)

We draw back the tongue, gradually forming the opening of the mouth into an oval shape by means of the lips.

$$2^{nd}$$
 To come from A to I a- e open, e closed - i

The tongue must be put forward, and the corners of the mouth distended the sound, after escaping from the larynx, will pass closely between the forepart of the tongue and the palatine vault.

We must again bring the tongue forward putting the lips together so as to form a tube; the sound will then pass through the narrow space between the tongue and the palate.

The other vowels are only modifications of the ten we have mentioned, and we give them spontaneously in the transitions we have indicated.

So the lips and the buccal cavity have the power to modify or change the timbre of the vowels. (6) The constant study of the pupil must be to apply to each sound in the manner we have indicated, the intermediary vowel best adapted to it, without going from the main vowel which serves as a basis; and he must take care to resound the voice in the cheeks, the buccal cavities being the resounding body of the vocal instrument.

The pupil should here practise the second part of the 50 lessons of singing for the medium voice by Concone, seeking to practically apply the vowels as above explained.

⁽²⁾ See Lesson II.
(3) In a note published April 25th 1870 on the fixed notes characteristic to the several vowels M. Koenic after explaining Donders's and Helmholtz's systems on the principal vowels which have a fixed note in the vocal tube whatever the fundamental note on which they are emitted may be, designates the five vowels by the following notes:

88 ------



and completes their discovery by the aid of five new diapasons.

⁽¹⁾ The vowels a, e, i, o, u must be pronounced as in Italian viz: ah, eh, ee, oh, oo.

⁽⁴⁾ Bendseil Physiologie der Restimme.

⁽⁵⁾ CHLADNI.

⁽⁶⁾ Here we are pleased to mention an instrument invented by M. Koenic, the results of which strongly corroborate our theory. It is simply a reed mounted in a wind pipe and surmounted by a resounding body. By vibrating the reed, we obtain an acute screamlike sound very rich in harmonics, but if we make the sound pass into the resounding body, it will take an extremely mellow timbre, which very much resembles a vowel, if we then modify the opening of the resounding body, by the aid of the fingers, (which take the place of the lips) we can obtain a succession of vowels and even a swelled sound.

SIXTH LESSON

OF THE BLENDING OF THE REGISTERS OR SOUNDS OF DIVERSE TIMBRES.

The chromatic exercise, which follows is destined to effect the complete blending of the registers of the voice. In order to facilitate its study, we have divided it into periods and series; each series embraces three periods, each period a measure of three notes. We have divided the scale into four series.

We attack the first note with the chest voice in the same way as for the decrescendo and the crescendo; by the resonance of the higher octave we rise to the second note giving the voice a degree (1) of the timbre of the low Medium voice; at the third note of the period, that is to say at the end of the decrescendo, we give two degrees.

We attack the second period always preserving the acquired timbre, and we continue as for the first, but when we arrive at 3^d and 4th degrees, as shown by the numbers placed over the notes in the 3^d period, the MI is repeated, and we find ourselves in the second series in attacking the FA this is the reason why the last note of the series is not numbered.

FIRST SERIES

FROM THE CHEST VOICE TOWARDS THE LOW MEDIUM VOICE.



After being sure of the execution of the first series, we may pass to the second which we must execute in the same manner.

SECOND SERIES

From the LOW MEDIUM VOICE TOWARDS THE HIGH MEDIUM.



⁽¹⁾ Let us suppose that from the chest timbre we go to the low medium by successive and regular degrees; the place from where we start to were we stop as well as the two intermediary vowels constitute each of them what is called a degree in the scale of the timbres.

The third and fourth series are the most important, for they lead to the fusion of the Medium voice with the falsetto.

Tenors often employ in the high notes the head voice or falsetto which is what remains of the voice of childhood, and produces almost always a disagreeable effect because of the great difference of its timbre; so we must try to give it the character and the timbre of the chest voice, without letting this exercise a direct action upon it. These two series must be practised with particular care, proceeding by the resonance of the lower octave.

The first two notes of the ist Period being already placed, for the 2nd series we rise to the 3^d note by a degree of the head voice, and descend also to the resonance of the lower octave by a degree. The numbers placed on the sign show the gradual descent of the resonance to the lower octave.

THIRD SERIES

From the high Medium voice towards the i" Mixed head voice.



When we have attacked a high sound with the head voice if we attempt to obtain the resonance of the grave octave, we expose ourselves to break the voice and produce a Couac; to avoid this, we must increase the pressure of the sustaining air in the wind pipe of the trachea, helping it by the raising of the diaphragm and the swelling of the chest, so that the sound may be easily sustained, while it descends to the grave resonance. The vowel becomes rounder, almost an O, while the primitive sound is attacked with the vowel E, a slight tension of the nerves of the Larynx is indispensable and the voice must more than ever fill the mouth with sound making it vibrate with energy against the palate.

FOURTH SERIES

From the 1st Mixed towards the 2d Mixed voice.



The transformation of the voice to falsetto is very difficult and cannot be attained without constant and accurate study; it is necessary that the throat should have time to accustom itself to this special emission of the voice.

We must begin with a slight *crescendo*, keeping in the region of the falsetto we arrive at the complete fusion of this register with the preceding one if we are careful to always resound the voice in the various cavities, and to make the air vibrate in unison with the reed or glottis, we repeat this because the glottis is the reed of the vocal instrument.

The last part of this study, that is the 4th Series is not really necessary for sopranos whose head voice generally differs very little from the preceding register, it will be useful however for those voices which are of unequal timbres or guttural. And it is positively indispensable for Barytons, Tenors and Contraltos, who must exercise themselves within the limits of their respective voices.

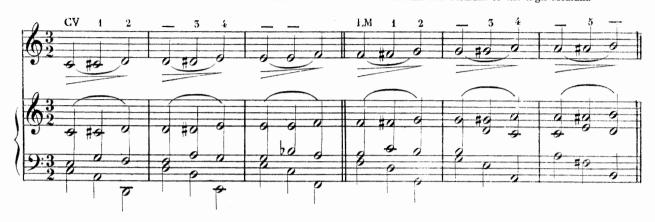
After each series has been studied separately, they must be executed consecutively.

1.st SERIES

2.d SERIES

From the Chest voice to the low Medium

From the low Medium to the high Medium.



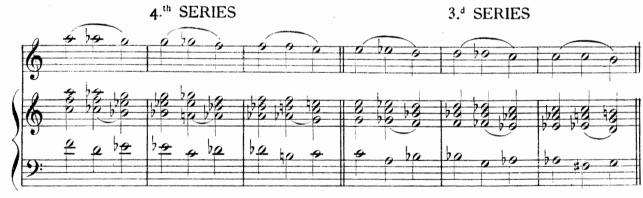
3.d SERIES

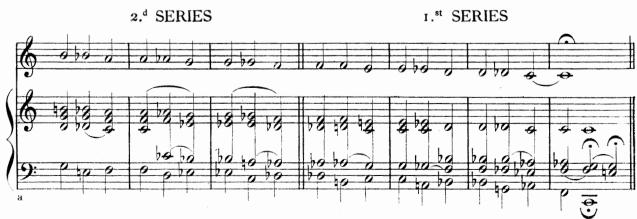
4.th SERIES

From the high Medium to the head r.st Mixed.

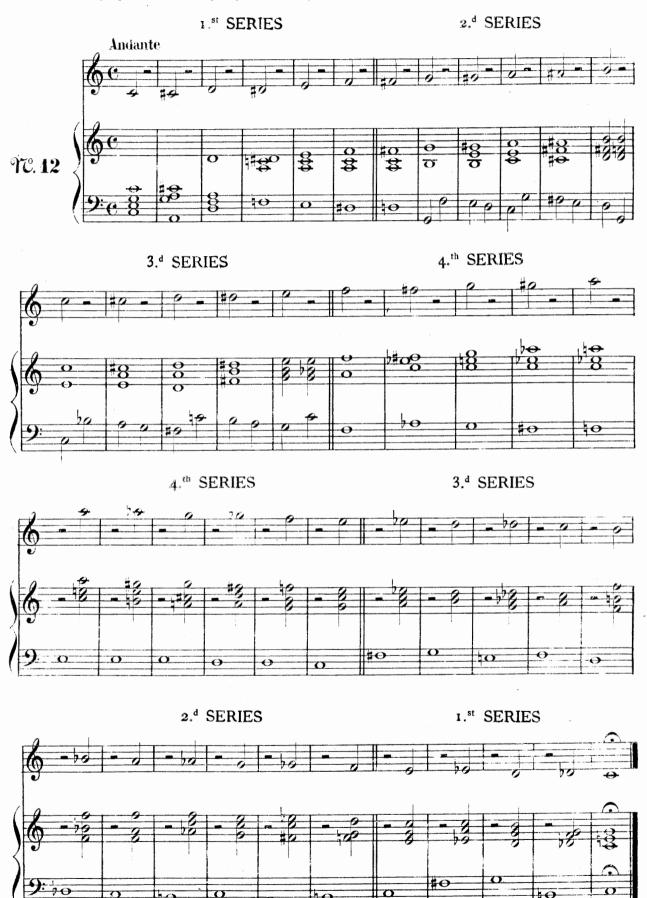
From the 1.st Mixed to the 2.d Mixed.







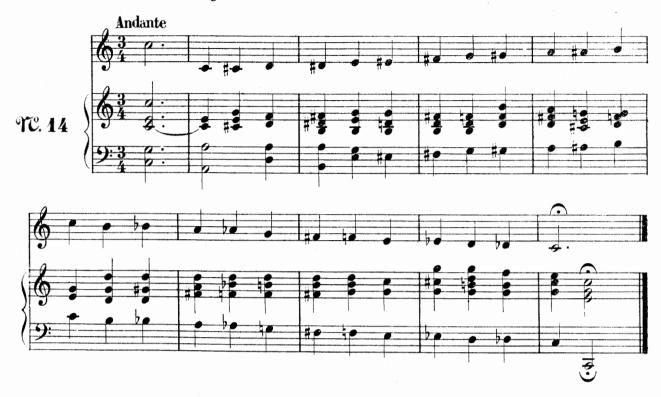
We indicate the series at the head of the following exercise, in order to make the pupil rememberhe must always practise the study explained in this lesson.



Other exercises in the same order follow.



The pupil must attack the high note with the resonance of the lower octave, and the low note must rise to the resonance of the higher octave.



We transcribe the first vocal exercise of the 25 Lessons of singing by Concone which follow the 50 already named, and we mark the three different accents. The pupil must study in succession the said lessons following the three accents we have indicated.





SEVENTH LESSON

OF INTERVALS.

After having, by the preceding work, obtained the fusion of the registers of the voice, the homogeneity of the sounds and the timbre, the pupil must give all his attention to the study of intervals, a study to which he must apply all the principles we have given. He will find in methods of singing, exercises completing those given here, and we recommend above all that they should be studied in the two different manners. (1)



⁽¹⁾ These intervals must be carefully practised with regard to the homogeneity of the different sounds and their unity of timbre as well as with regard to their intonation.







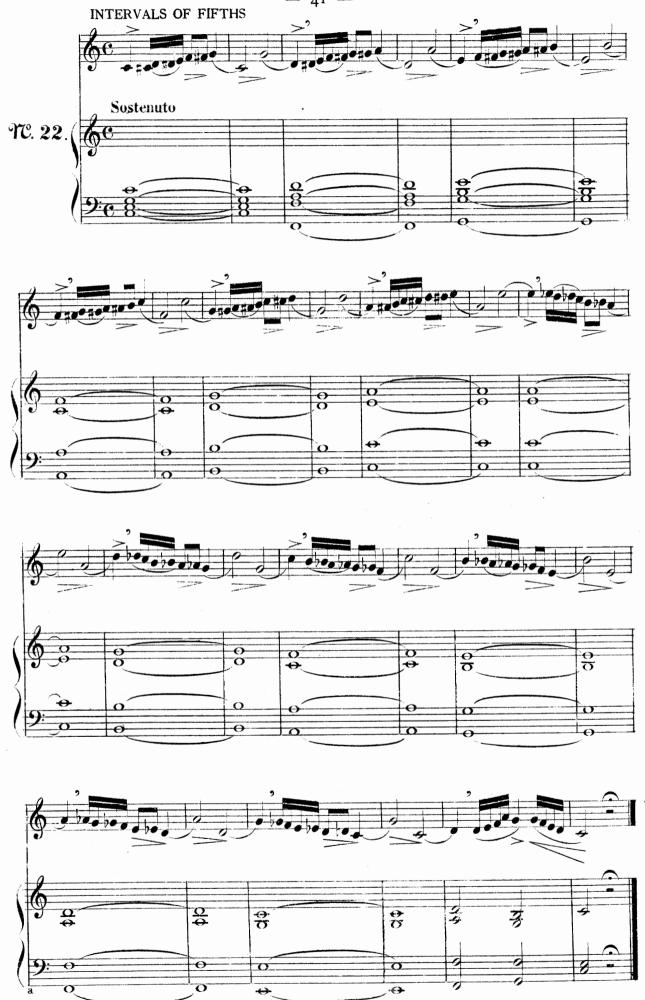










































EIGHTH LESSON

OF THE PICCHETTATI AND FLAUTATI SOUNDS, OF ECHOS, OF THE APPOGGIATURA AND PREPARATION OF THE VOICE FOR CHANGES OF TONE.

After having obtained a perfect homogeneity in the emission of sounds, one must practise agility which is necessary in order to render the voice flexible and subject to the will of the singer, and to the exigencies of a correct execution.

The picchettati must be executed by a contraction of the lips of the glottis which will let out a little air before the emission of the note; but as soon as this has vibrated, the expiration must be suspended to prepare the following sound.

To make this study easier, the first sound must be tied to the second, (which will be dotted) by the aid of the decrescendo.

Example:



⁽¹⁾ Besides the above exercises the exercises C and D and ALARY's rocal exercise E will be executed (see Appendix page 82).



If we wish to give the picchettati on several successive sounds, we must attack each one of them with the syllable HA (very short) by the aid of a sudden pressure of air; it is understood that this pressure must not give any shock to the chest or to the larynx.





The flautati (flute-like) sounds are attacked in the same way, but instead of leaving them, we prolong them by an immediate resonance of the higher octave.





Exercise \mathbf{F} follows (see Appendix page 85).

There are two kinds of echoes, the echo produced immediately, and the echo produced ofter a pause of more or less duration, the first is obtained by means of an immediate decrescendo on the last note of the musical phrase, and by blending this decrescendo with the first note of the echo, and carrying the voice from a grave to an acute timbre. In the second instance the last note of the musical phrase must be given with all its natural brilliancy, and then, after a pause the echo must be produced with the voice full but sombre in tone.

To obtain the effect of the echo it is necessary to give the voice a closed almost veiled timbre, restraining the breath slightly and at the same time opening the throat well, the sound must be given with an open vowel, and the echo with a closed one.



For the appoggiatura, the mordente the gruppetto and all grace notes in general, the sound must be attacked as we have indicated above and conducted as has been explained in the preceding Lessons, accenting the first note of each measure with vigor but without harshness.

We do not think it necessary to speak here of the different kinds of appoggiatura and gruppetti, because the pupil will have learnt them in the course of solfeggio. (1)



⁽¹⁾ Here may be studied the exercises $\dot{\mathbf{G}}$ and \mathbf{H} of the Appendix p. 86, to which may be added the vocal exercise No. 9 for Contralto or Base of G. Alary's, and of Garcia's (the father) exercises from No. 24 to 29 and No. 32, 37, 38, 52, 53, 57.



The following exercises are to habituate the voice to changes of tone.









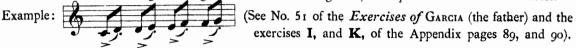




NINTH LESSON

REPEATED NOTES AND SCALES.

For repeated notes, we must once more use the resonance of the octave; and decrease the sound on the second note to which we give a slight movement of the glottis; as explained for the dotted notes.



To prepare the study of the scales, we must also accent in the same way the first the two notes:



The pupil must not forget to practise in an undertone, preserving the same timbre during the whole of the scale by the aid of the intermediary vowels; he can give the natural force to his voice when he is able to quite control it. This study requires before everything a well regulated respiration. In order to avoid decreasing the time in the ascending scale, we must give a slight stroke of the glottis on the first note of each beat so as to accent it.

The descending scale, which on the contrary tends to accelerate the movement, must be sustained by keeping the respiration at a constant pressure of increasing intensity, and we must avoid letting any air escape between the sounds always accenting the first note of each beat. The pupil must work slowly at first and in order to adapt his voice to all the accents, he must reverse them, accenting the first, then the second, then the third and lastly the fourth beat of each measure.

He may then study among the Twenty Vocal exercises of G. Alary for Contralto or Base voice, those which are most fitted for this kind of study. He may transpose them according to the quality of his voice.

TENTH LESSON

THE TRILL.

The trill is the ornament most used in singing, specially for female voices; we advise the pupil to practise it from the commencement of his studies, as unless he has a great natural disposition it is acquired with difficulty.

He must begin by practising repeated notes. The staccato notes stand between the picchettati and the fautati notes, they are longer than the first and shorter than the second. The pupil is always to make use of the syllabe HA conserving an equal timbre and sonority. The movement must be well rhythmed, the first note of each measure accented, and the pressure of air of a strict regularity.



E. Dette Senie, Part I.

After having accustomed the throat to the execution of the repeated notes of the preceding exercise, the pupil may go on to the following one of dotted notes, which he must execute in all the tones by chromatic progression.



He may then pass to the following exercise and study Nos. 33 and 34 of the *Exercises* of Garcia (the father), which must be executed in chromatic progression, the studies on the trill of M.^{me} Cinti-Damoreau's two new methods, the two *Vocal exercises* of G. Alary which will be found in the appendix at letters O, and P, and lastly the letter Q of the said Appendix page 98.





The pupil will then practise Danzi's Vocal exercises for Base; transposing them to any tone the nature of his voice requires.

ELEVENTH LESSON

TRIPLETS.

The execution of triplets offers great difficulties. There are two tendencies to be avoided; that of disjoining the notes in the ascending passage and that of precipitating them in the descending ones.

We shall acquire a perfect equality by reversing the accent as we have indicated for the scales. The pupil may also practice the exercises Nos. 35, 36 and 54 of the Vocal exercises for Contralto by Danzi and the Exercises of the new method, by M.^{me} Cinti-Damoreau to which may be added the Vocal exercise of Alary's to be found in the Appendix at the letter **R**. Page 106.





ALARY'S Exercise follows (see Appendix letter R.)

TWELTH LESSON

ARPEGGIOS.

Arpeggios are to accustom the voice to the intervals and thus attain the homogeneity of the different sounds. The first note of the arpeggio must be attacked with the position of the throat necessary for the highest sound, as we have already indicated at the Lesson VI.

The Nos. 61 and 62 of Garcia's Vocal exercises and those for Soprano by Danzi may be practised also Nos. 5, 6 and 10 of G. Alary's Gorgheggi published in Paris as are all these author's exercises.





APPENDIX

•

BLENDING OF THE REGISTERS.

After the 11th Exercise (see page 22).







DETACHED (PICCHETTATI) SOUNDS.

After the 35th Exercise (see page 57).



ALARY'S VOCAL EXERCISE.





FLUTE-LIKE (FLAUTATI) SOUNDS.

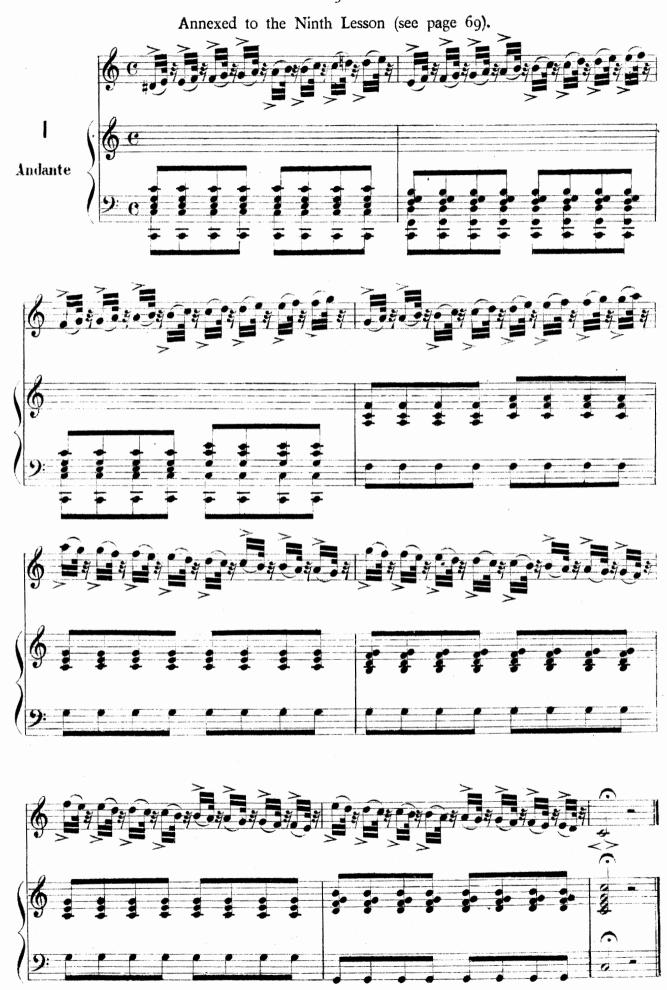


APPOGGIATURA, GRUPPETTO, AND MORDENTE. After the 39th Exercise (see page 63).





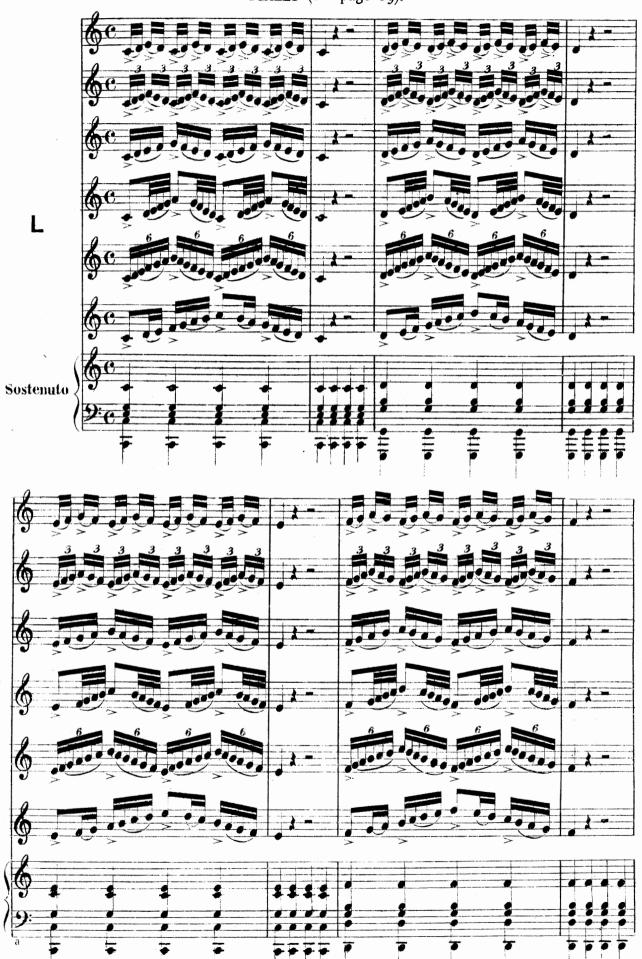






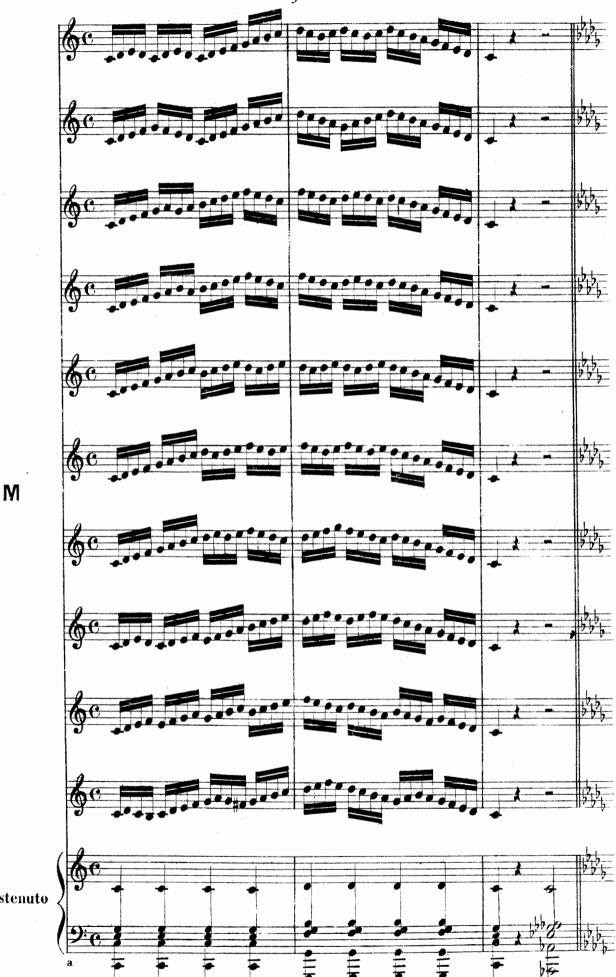


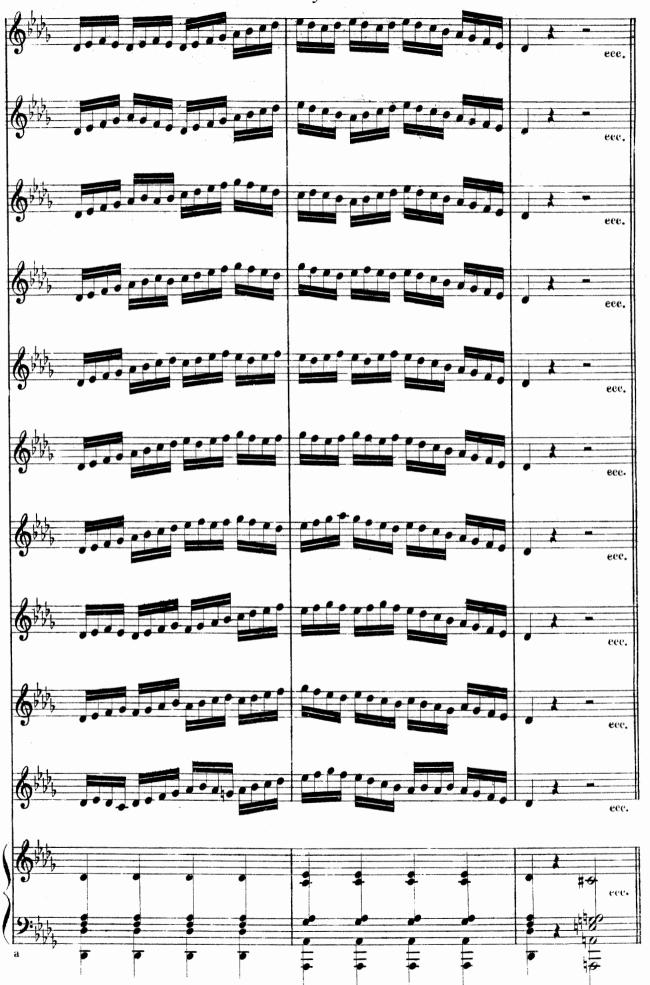
SCALES (see page 69).













THE TRILL.

After the 44th Exercise (see page 70).

















TRIPLETS.

After the 45th Exercise (see page 72.)









E. Delle Sedie, Part I.

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