

**A NEW SYSTEM OF
HARMONY
BASED ON FOUR
FUNDAMENTAL CHORDS**

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A new system of harmony based on four fundamental chords by Eduardo Gariel

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EDUARDO GARIEL

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A
NEW SYSTEM OF HARMONY
BASED ON
FOUR FUNDAMENTAL CHORDS

BY
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To
VENUSTIANO CARRANZA
First Chief of the Constitutionalist Army
Invested with the Executive Power

This is a revolutionary book. To whom should I dedicate it better than to the leader of the greatest and most transcendental revolution that ever occurred in Mexico? I beg you to accept it, not only as a token of our old friendship, but as a tribute to the man who has in his hands the reconstruction of our beloved country.

THE AUTHOR.

City of Mexico, January, 1916.

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A NEW SYSTEM OF HARMONY BASED ON FOUR FUNDAMENTAL CHORDS

A well-known fact in the domain of science is the great importance of a good classification. The classification that I shall explain here is based on *four fundamental chords*, and is marked by a clearness and simplicity not ordinarily found in books treating on this subject.

Every well instructed musician knows that the classification now employed groups the musical chords *according to their form*: and so we have *major* chords, *minor* chords, chords of the *sixth*, of the *sixth and fourth*, chords of the *seventh*, of the *fifth and sixth*, of the *third and fourth*, of the *second*, and so forth, according to certain intervals that are found in them.

Since Rameau (eighteenth century) this classification has served, it is true, to explain and teach musical Harmony; but surely very many have felt, as I always have, that even after learning to write and play musical chords, it always remains a kind of mystery to employ them in a musical way, and this is especially true of the triads and their inversions.

As you will see further on, in my classification the chords are grouped according to their *tendencies*, making *families of chords* which obey the *same law*, irrespective of their form.

The books on Harmony teach that chords of the seventh have certain prescribed movements — or “resolutions,” as they are called — but they also teach other movements or resolutions considered as exceptional. Talking about the triads, which are treated first, they say that these are more difficult to handle, being more free in their movements; to guide you they establish certain fixed and almost inflexible rules that leave you in

the dark as to their origin and reason. What is worse, there are many text-books that do not say anything about the movements of these chords.

The truth about this — and I consider it a real discovery of mine — is that the *triads* also have a tendency, as well as the *dissonant* chords, and that this *tendency* is the same when both — triads and chords of the seventh — have the same fundamental and come from the same origin or *great fundamental chord*.

But now let us leave criticism of the known systems, and speak about the new classification and its results. I hope that my fellow musicians will find it clear, easy and logical, and, above all, practical and useful for the teaching of musical composition.

To make perfectly plain the *laws* that govern the movements of musical chords, it is necessary to go back to the musical scale itself on which modern music is based. If we consider the *real* musical scale and not the conventional one ordinarily explained in musical books, we find the following facts:

(1) It has eight sounds or degrees, called C, D, E, F, G, A, B, C in the key of C.

(2) The mathematical ratios, as given in Acoustics, between each degree and the fundamental, or first one, are as follows:

1								
C	D	E	F	G	A	B	C	
1	$\frac{9}{8}$	$\frac{5}{4}$	$\frac{4}{3}$	$\frac{3}{2}$	$\frac{5}{3}$	$\frac{15}{8}$	2	

Here follows the explanation of this figuring: If we take a C of 240 vibrations, the D — or second degree — whose ratio is $\frac{9}{8}$, will have 9 vibrations in the same time that C has 8, or (completing the computation), $240 \times 9 \div 8 = 270$ vibrations for D; and so forth.

Now, if we want to know the mathematical ratios *between all the contiguous degrees* of the scale, we shall find them by dividing the greater one by the lesser. Taking C as 1, we already have