

Learn the Neck

A Positional Analysis of the of the Guitar Fretboard

Part One

By Ed Shaw

The Root Triad
(1-3-5 or C-E-G)

First Inversion
(3-5-1 or E-G-C)

Second Inversion
(5-1-3 or G-C-E)

Plate Three. C Major Triads and Inversions

May 16, 2014
Trinidad, Colorado

Introduction

I embarked on this book about several years ago, after discovering the power of triads and inversions.

Prior to that time, I was content to learn little bits and pieces, a chord here, a scale there, and build music around that individualized knowledge.

It is amazing what you can accomplish knowing three notes and three abbreviated scales in a couple of positions. At one time, my key was E major.

Part One of the book discusses the third fretboard position, frets five through eight. In later parts, we will discuss all six fretboard positions.

I have written the book in an attempt to simplify the learning process I went through. It would be a great help to have an experienced guitar player guide the student through this book. Really, it is a teacher's guide.

To those who play and sing to the Glory of God,
all the better.

All the material, the words, the graphics, and the teaching method, are my own. Actually, yours, too, since I hereby convey rights to this work to Creative Commons, Fair Use, meaning give credit, as of today, May 16th, 2014. Enjoy!

Your friend,

Ed Shaw

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This is a guide for people who want to learn the notes on the fretboard, for musician interested in sight reading the notes as a way to master music.

Would anyone care to talk a bit about guitar fret board positions? I don't see us really getting to where we want to be with either melodic music or comp and rhythm based music until we learn to produce patterns in six positions of the neck.

The positions correspond to the dots on the neck. These are approximations and can vary depending on the key of the song, or, more accurately stated, dependent upon the key the player chooses to specialize in.

G Major and A Major are widely used keys. I concentrate on C Major. That means my index finger is often home-based on the 5th fret. The fifth fret is the top of the second position and the bottom of the third position. If you take nothing else away from this discussion, let it be that little piece of information.

What I have to say applies to the six positions of the neck. In this part, I direct your attention to the third position. The third position is the heart of the neck. It is frets 5,6,7,and 8. In the third, there is great musical potential. Almost two full C scales, all or part of the three note chords (triads) C through D#, F through Ab, and A through C. Unlock the potential of the instrument by learning the scales, the triads, their inversions, and the progressions with me.

Two powerful C Major Scales at the Third Position

There is a very common C note on that fifth fret. Ascending the C scale is very easy from that position. The hand does not have to move. Descending the scale from that position is convenient. You have two choices. You can descend the scale to the eighth fret C note or two the third fret C note. If this is confusing to you, then you will have to learn both where the C notes on the fretboard are, and how to play the major C scale -- C,D,E,F,G,A,B,C -- ascending and descending. That means ingraining the major scale pattern.

The major scale pattern for C Major is:

Root (C) whole (D) whole (E) half (F) whole (G) whole (A) half (B) octave (C)

Learn it visually, with audio, with flash cards, drill it, or whatever. Bring every tool in your learning arsenal to bear to ingrain that pattern. At the heart, it is a series of intervals. Don't hold back, play it every key from every root on the instrument. Until that starts to happen, what I have to say is not going to mean much to you.

It may be that what I have to say really does not apply to your particular musical style. That is not intended as a criticism. No matter. Don't waste your time learning something you won't be using. Different strokes for different folks.

When the index finger is on the fifth fret C note and the descending scale target is the eighth fret note C (top E String) you will make a one-half step move on the way down, between the G note and the F note, to set the hand in the right position.

Move the hand down a fret and a half when the target is the the third fret C note, which is on the A string. How convenient. The hand position does not change once that pinky is planted on the fifth fret C note.

All things considered, that fifth fret C note is a pretty good home base, in that respect. Meaning, a lot can be accomplished in the Key of C with a minimum of movement of the hand up and down the board.

You may find another hand position more useful depending on the Key you are most interested in, bearing in mind I am concentrating here on C Major, and on the scales C, F, and G.

There is another great C position located on the tenth fret. When I say great, I mean useful and flexible. A position is useful and flexible when its location allows easy ascending and descending access to all the mid range notes and is in an easy to reach board position. D-string, tenth fret, meets those requirements. We'll talk about that note when we discuss the fourth and fifth positions.

Right now, we are on Position Three, Frets 5-8.

The guitar is a treble instrument. Middle C on the piano is on the third fret A-string., way down there. Between low (or top string) open E note and the 12th fret high E note (bottom string) are three octaves. High C is on the 20th fret, but most players rarely go there. Technically speaking, there is a fourth octave, it is from E note 12th fret to E note 24th fret.

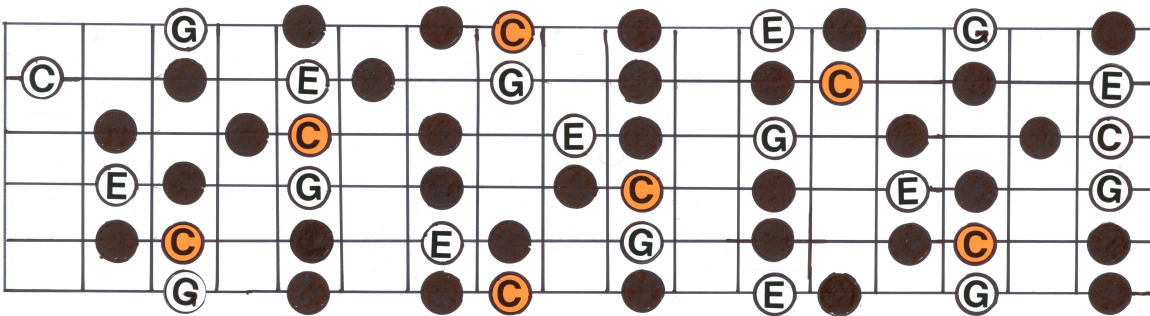
We will talk about those top positions at a later date. One of interest is the 6th position, frets 12 through 16. That is where those high note melodies and riffs are played. We master the neck, one position at a time. We started by mastering first (or open) position chords. Now we are moving to learning melodies on positions two through six, one at a time.

What I have said here also applies to the Pentatonic Scales, which are popular. In the key of C Major, the A Minor Pentatonic scale is where the action in blues and classic rock is. That scale is A, C, D, E, G, and A. Like all relative minors, it is the sixth of the scale. The third position has it covered, but A Minor Pentatonic also plays very well from the Fifth position, pinky on the twelfth fret A note. So, pentatonic players, don't think none of this applies to your style.

This concludes post #1, discussion about one of the favored neck positions, the third. Learning the positions, it can be helpful to learn the six positions one at a time. This is the hardest part, but at least you know where you are going. Then combine the six into three two: position one and two, three and four, lastly five and six. Once you get the three twos down, go for two threes. Finally, it is just one. Long day's journey into night.

This can be confusing when players are just learning the language. It is to be expected.

All the natural notes (no sharp or flat) have a place somewhere on the C scales.



So many C Major Scales, so little time. I count 13 either ascending or descending scales over sixteen frets, here.

One good thing is there are repeating patterns. Thank goodness for that. Another good thing: learning a scale position brings along another powerful skill, knowledge of and ability to play the chords and the chord progressions.

The scales become a map of the fret board. But, it doesn't happen by itself.

Post #2 Discussion of the C Major Scales on Position Three

As an incentive, maybe a life saver, for those who may have read the first post, who may have seen the value in practicing that C major scale on the third position, who may have given it a try, but just could not make themselves stay with the pace or logic (or lack of same) of ideas, I thought I would write a detailed review of that material. I can't do this for every post, but to kick start the process, here goes.

It is probably easier if you have someone read this to you.

The first post was devoted to the C major scale on the third position, Frets five through eight.

Note: One thing I don't want to do is to get into the habit of referring to notes in the way of "eighth fret low E string." (Funny the low tone is the top string !)

When I want to refer to the C note played on the low E string eighth fret, I want to call it the "Eighth Fret C." There are two C notes on the eighth fret, one on the top string and one on the bottom. It can get confusing, but the context should take away the confusion. I just don't think it sounds good when musicians can't identify the notes on their instruments. If that means the reader has to count up each string from the nut until he finds it, then so be it. The easier way is to get a hold of a fretboard diagram. Your goal is to learn the name of every position on the fret board. I am not going to enable procrastination.

The C scale is C - D - E- F - G - A -

Enough about that. Let's get on with it.

Here is where patience is rewarded. Follow along very deliberately.

Place your pinky on the fat E string, Fret Eight. That is a C note. From that position, the interval to the next note, the D note, is down one string (to the A string) and down one and a half frets. The index finger, Finger One, naturally falls right on the D note. Already, we are having fun, because we just learned that the one/two scale interval is down a string, down three frets (1.5 steps.)

The guitar strings are tuned to the fifth of the scale, but don't think about this right now. Just know that finger one is now on the A string D note, which is the 2nd of the scale. Our next note, the E note, the 3rd degree of the scale, is a full step higher. finger three is right over it. The next note, the 4th note is up a half step. That is the F note and the pinky plays it.

We are now ready to advance another string and another whole interval, which, as we just learned, is down a string, down three frets. It is a G. Your index finger is over it. Go for it.

If you have stayed with it this far, Finger One is on the fifth note of the scale, the G note. That is the D string, Fifth fret.

Now you are ready to move to the 6 of the scale, and it is the A note. That note is a full step, or two frets, higher than the G note. Play it with finger three.

Your pinky is now on the seventh fret A note, and your next target is the B note. You already know the interval -- down a string, down three frets. But wait, no finger is over that note. What are we to do now?

You probably guessed. We are going to shift the entire hand down a fret. When I say "shift," shift and play the B note with Finger One on the G string, Fret Four. In my terms, that is the "Fourth Fret G."

" Shift ! "

Hold that thought, hold that position. This is a great time to talk about one of the most common and useful intervals of all -- the half step interval between the 7 and the 8th (the Octave.)

In the C scale, the 7 is the B note and the 8 is the C note. The distance between, or interval, is one half step, or one fret. Finger Two is over it. Play it. Congratulations, you just played one of the most common C scale positions on the neck, the lower C scale on the third position.

Take a break, you are halfway through the post. But, guess what. You just learned one of the strongest C scale positions on the neck. Now all you have to do is play it up and down a few thousand times -- No, just kidding, you will ingrain it by playing simple melodies from Sheet Music in the Key of C major. Don't panic. That comes later. But, do go out and buy the Hal Leonard guitar book, any time. It has a lot of sheet music in it. Or pick a book you want that has simplified C major songs you want to play.

OK, are you ready to continue playing the C scale, Position Three? Picking up where we left off, Finger Two is playing the Fret Five C note. Our goal is to play the next octave C scale in that same position, Position Three. Let's cut through the bull and simply re-shift the hand back to where it was and place Finger One on that Fret Five C note. That will make it easier, going forward, because now our hand position will not change through this scale. Getting the hand in the right position, going forward with this, turns out to be a major pain, but we will do it.

Recall we learned that the interval between notes one and two (the 1st and 2nd) was down a string and down three frets. That is true, but there is another important interval between the 1st and 2nd degrees of the scale when playing the same string. That interval is "up a whole step" or, in other words, up two frets.

Use that interval knowledge by playing the D note with Finger Three, Fret Eight, up a full step. Now, at this point, many people have trouble on account of the fact that the fifth string, the B string, is tuned to a fourth rather than a fifth. This means the intervals we applied to the top four strings suddenly drops one half a step to make up for this change. Intervals return to normal once we get by the B string.

Rather than make things more complicated than they already are, let's just simplify by stating that our next note, the E note (remember, we are now on the D note) is directly under the C note, rather than down a string, down a fret, where we might have expected to find it.

Play the E note with Finger One on the Fifth fret of the B string.

Up a half step (one fret) to the F note. Then go up a full step. Play the G note, the 5th of the scale with the Pinky.

Next string, please.

Find the 6th of the scale, the A note, on the E string, Fret Five. You don't have to move your hand. You are now ready to play the 7 and 8 with fingers three and four.

Remember that useful half step interval between notes seven and eight of the scale?

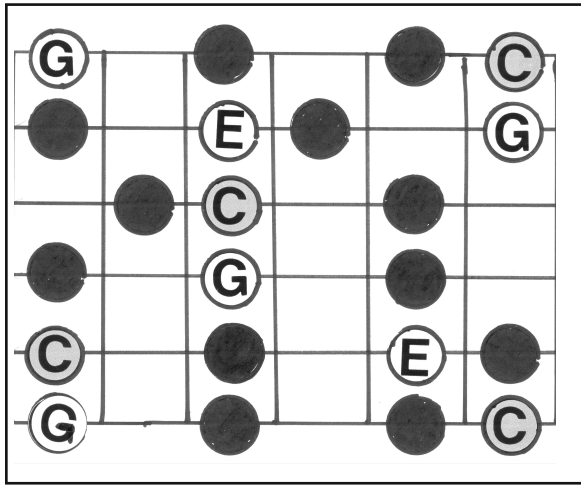
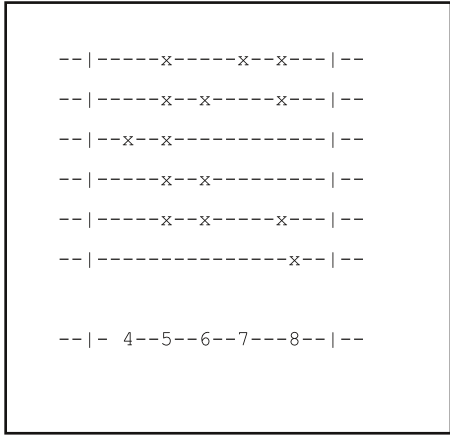
That was easy.

You have learned two C scale positions on the neck. You have learned the two C scales on the third position. Learn three more and you have mastered the C scales on the neck. Along the way, you have made some very important associations, associations that will serve you well as you proceed. Not the least is that you are learning intervals. Not the least is that you are starting to associate string and fret with degrees of a scale and with letter designations. For one thing, you now know where two C notes are located.

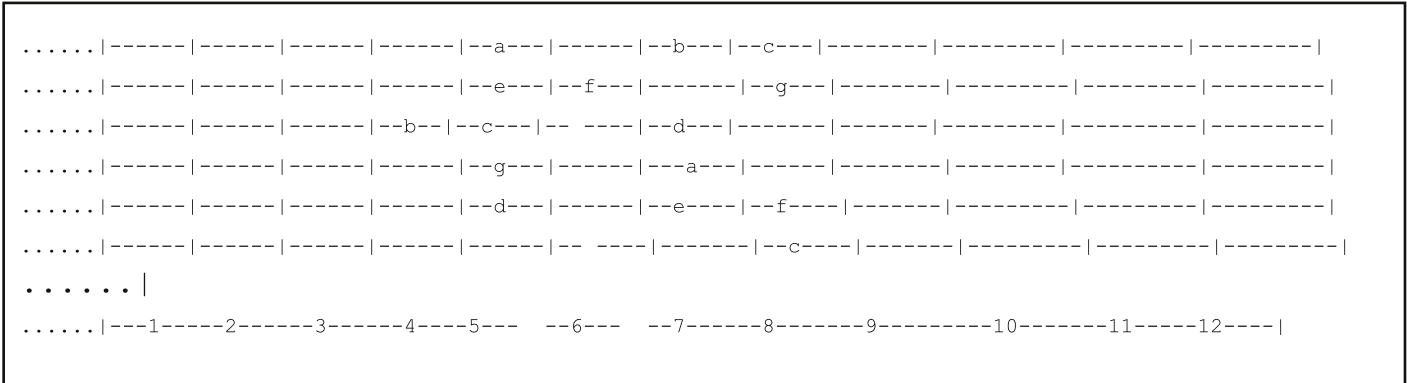
So, that was the tedious step by step review the two C scales on the third position of the fret board.

Whew! Hopefully we only have to go through that, once.

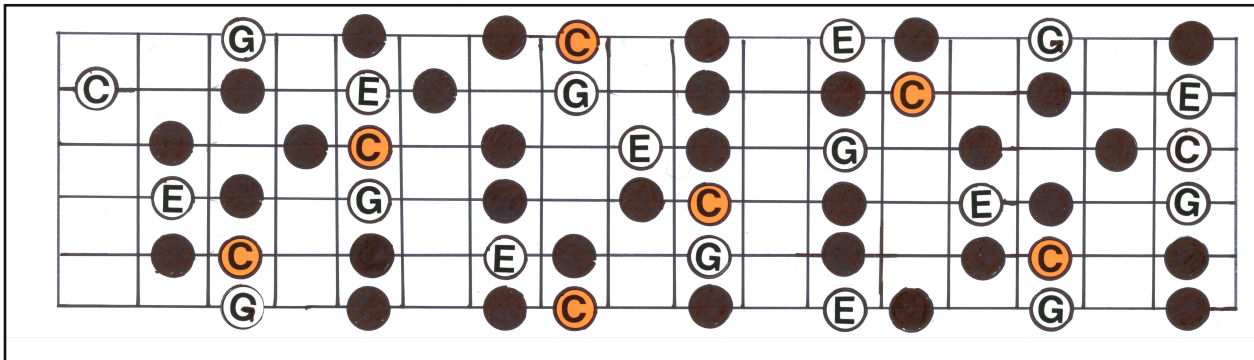
Some are learning a new language. That's always a task at first. It gets easier, and more fun, too.



Here is the C Major scale in the third fretboard position. The pinky is on the top E string, eight fret, C note. The neck is comfortably cradled at the base of the fingers, the hand is arched, and the fingers are poised to press straight down on the strings. On the left is a computer version. On the left, a graphic. Both charts of of the same subject.



Above and below represent the full fretboard. Above, the third neck position is featured. Below, all positions of the C major scale are shown.



A Minor Pentatonic Scale at Position Three

.....|-----|-----|-----|-----|--a--|-----|-----|--c--|-----|-----|-----|-----|
|-----|-----|-----|-----|--e--|-----|-----|--g--|-----|-----|-----|-----|
|-----|-----|-----|-----|--c--|-----|--d--|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|--g--|-----|--a--|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|--d--|-----|--e--|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|--a--|-----|--c--|-----|-----|-----|-----|-----|
|
 •.....|---1---2---3---4---5---6---7---8---9---10---11---12---|

All of the A Minor Pentatonic Scales

The A Minor Pentatonic Scale on a Treble Staff

There is some interest out there in developing melodic solo skills. I won't end this seminar without closing the circle on that objective. Students must learn the fundamentals. On the next page, we start a summary of what we have learned so far.

Review

In a nutshell, we learned the two C major scales of the third position, frets 5th through 8th.

In the process, we became more familiar with the strings and talked about how they are tuned to a fifth, with the exception of the B string, which is tuned to the fourth of the string before it.

We applied the concept of intervals, very useful. An interval is the distance between notes. We saw a positive way to apply it.

A very important unmentioned lesson was that the 4 of the scale is directly below the root, same fret. We can go into that later, as we touch on what is called a chord progression.

What else did we learn? Oh, we were introduced to hand positions, also called neck positions. We learned to think of the neck in terms of six positions of four frets each, marked by the dots. That's huge knowledge, because it just so happens we have four fingers on our hand.

We also learned to pay attention to hand shifting. Shifting the hands usually means changing finger positions, too.

That's a lot of knowledge that we embarked on. What we are really doing here is learning fundamentals and how to apply them.

Intro to Post #4

Where do we go from here?

The answer to that depends upon what happens to be in the best interests of the reader's learning. One option is to move up to the fourth position and learn the C scales in that position. Or, we could go down and talk about the second position. That's a lively position.

For now, I want us to remain focused on that third position. There is more information in terms of musical assets there to be explored.

In the meanwhile, I trust readers have taken the advice and started on the long journey of learning to sight read the C scale using the information provided in Post #1. I provide a link at the end of this part to one of my public domain sheets, "Amazing Grace." A great place to start is with the Hal Leonard Guitar, in three sections. I recommend buying that book as soon as possible. The notes are big there and easy to read. Drill the C Scale by playing from a music sheet; the ones with all the dots, lines, and staves. All it takes is will power, desire, and time.

Post #4 Triads and the inversions

You are now on your way to learning how to play "Mary had a Little Lamb" on your guitar, one note at a time. Audiences will be thrilled to recognize the song. I promised you I would unlock some secret third position assets for you, and here we go.

As a practical matter, we do not play straight melodies all the time. Actually, don't even want to be improvising on the melody to a great extent. Those performances are thrilling. However, as a practical matter, most of the time you will be playing strummed chord patterns, following the drummer and bass player as a vital part of the rhythm section.

If you are like most of us, you learned the first position chords and some moveable barre chords that allow you to play chord shapes higher on the neck. In this post, we will be introduced to the idea that acceptable chord combinations exist right up to the neck. You just need someone to unlock the code and show you where they are. Consequently, I will introduce you to the concept of three note chords and their inversions.

A chord consists of multiple harmonizing notes of a scale. There are many variations of chords. We will stick with what is called the common chord. A common chord is a three note chord consisting of the first, third and fifth notes of the scale. For the C chord, the first degree of the scale is a C note, also called the Root. We abbreviate the chord by calling it a 1-3-5 (a one three five) and everyone knows what we are talking about.

If the one of the C scale, or the "root" of the C scale is a C note, what do you suppose the three of the C Scale is?

If you said the E note, give yourself a gold star. The third note of the C scale is the E note.

If the scale is C - D- E - F - G - A - B - C , then, the third note is E note. The fifth degree of the scale is the G note. Since the common C chord consists of the 1-3-5, the notes of the C chord must be C, E, and G. Comprehende? Of course, you do.

The Root Triad
(1-3-5 or C-E-G)

First Inversion
(3-5-1 or E-G-C)

Second Inversion
(5-1-3 or G-C-E)

Plate Three. C Major Triads and Inversions

Here is the master plate that we will be working with in studying triads and inversions. Vital scale information is contained in this plate.

Important to remember: patterns and intervals that apply to the C note apply to the rest of the notes, too. The position changes, that's all.

What is an inversion?

For those not familiar with the idea of an inversion, it is simply a variation of the order in which the notes of the chord are played.

The common C chord on the piano is the 1-3-5 played in that order, C-E-G. An inverted chord is one where the order has been changed.

No big deal, you say? Stay around for this.

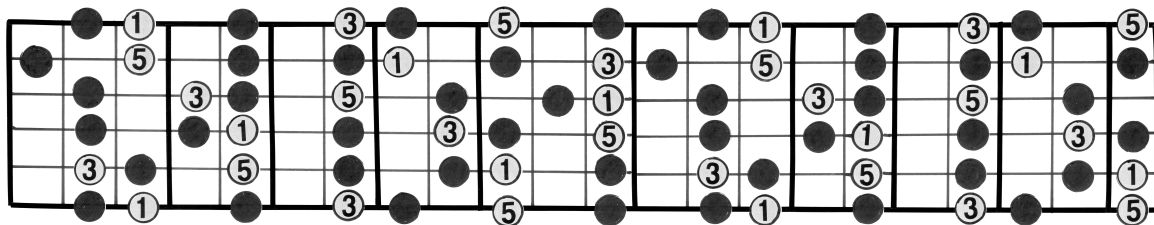
The first inversion of the C chord is E-G-C, or 3-5-1. The three has become the root.

The second inversion of the C chord is G-C-E, or 5-1-3. The five of the scale has become the root.

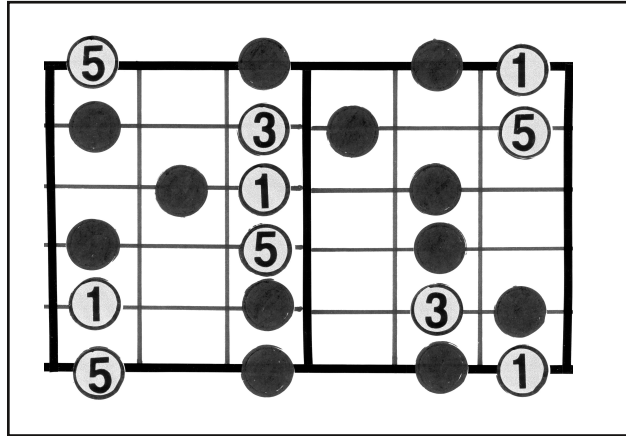
In the past, inverted chords were mostly popular with piano players. Lately, inverted chords have taken the guitar community by storm.

We will now see a C major chord on the third hand position, played in 1-3-5 order, from the top E string as 1-3-5 1-3-5 .

Coming up:
All of the three note C Major Chord positions
on the neck and their order of play.

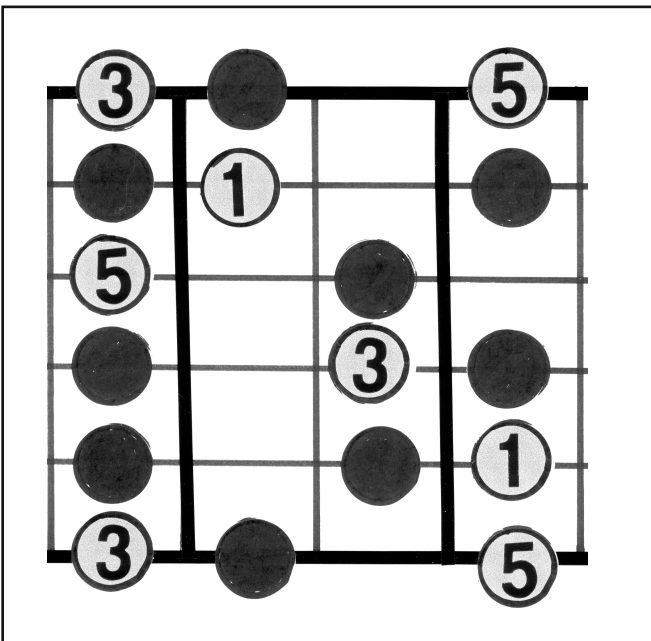


The secret code of the notes of the C chord at the third position. The order of play is 1-3-5 1-3-5, or C-E-G-C-E-G.



For reference, and because you must know that we are going to discuss three triad (three note) chord structures; namely, the root, the first inversion, and the second inversion, I am placing the two inversions here now. Still, I want our attention directed to the third position C chord. Remember, every time you see the number one in a circle, that is the root. In these cases, it is the C note. The three is the E note, and the five is the G note.

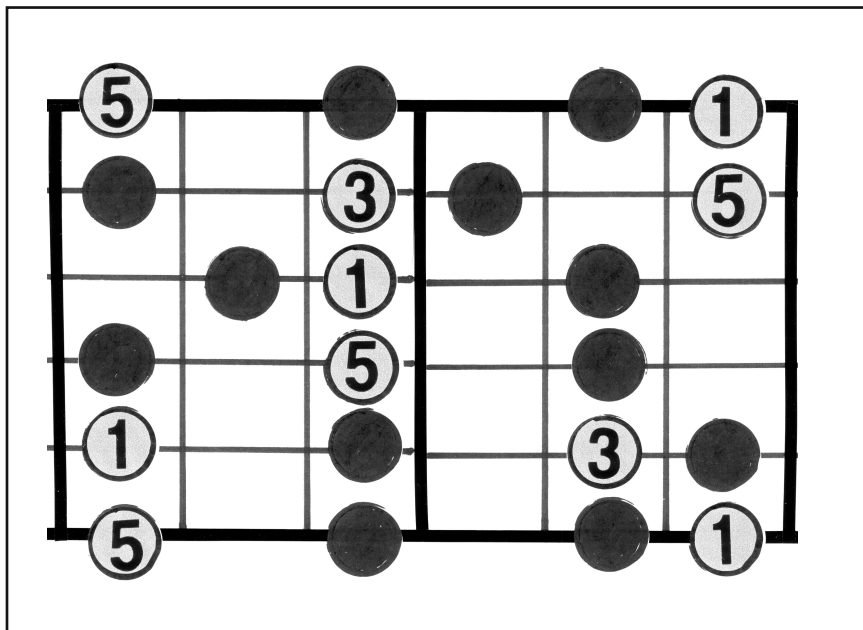
The 2nd Inversion of the C chord at the sixth position. The order of play is 5-1-3-5-1-3 or G-C-E-G-C-E.



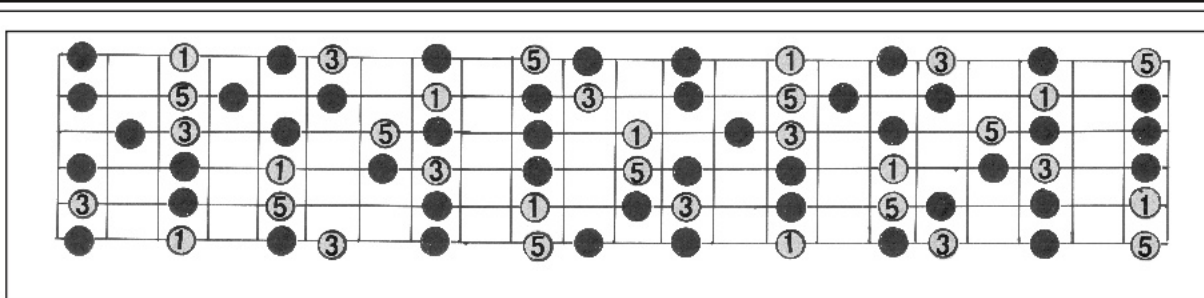
Ignore the notes that are not actually part of the triad pattern. Here, for example, the 5 in the lower E string and the 3 in the top E string are not part of the pattern.

This applies to the graphics, not to the computerized renderings.

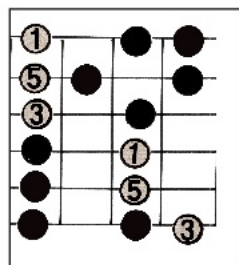
The 1st Inversion of the C chord at the fourth position. The order of play is 1-5-3-1-5-3, or E-G-C-E-G-C.



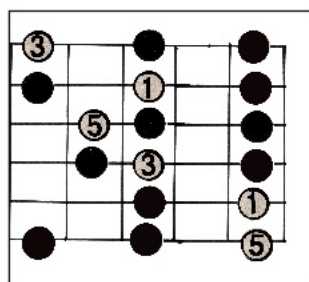
The Minor Triads and Inversions.



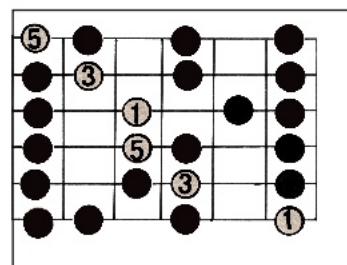
C Minor Scale with Triads



**First Inversion
(3-5-1)**



**Second Inversion
(5-1-3)**



**The Root Triad
(1-3-5)**

Plate Four. C Minor Triads and Inversions

Post #5

We are at another fork in the road. Do we continue to analyze and talk about the common C major chord at Position Three, or do we now go on in detail about the 1st and 2nd inversions at the third position? I would like to talk a bit about that C Major chord at that position, and I would like to talk about how that same shape can be moved up or down the neck to produce accurate chords in other keys.

For example, just like a barre chord is "moveable," so are the triads. With the barre chords, you grab a handful. That becomes a state of mind. People ask, "How do I move this triad shape?" The answer is, you don't. You simply approach the concept of a chord, a key, and a scale with a little different viewpoint than you gained from the Mel Bay book. I'll explain that later.

For now, we are going to witness the application of two more triad shapes, the first and the second inversions, on the strings of the guitar neck's third position, frets five through eight. We have made that decision because we announced the intention to draw out of the third position, all the knowledge we possess. Once that has been done, we can leave it to greater minds to expand on our knowledge. At the same time, if we milk the third position for all it is worth, the reader can apply what he now knows about one position to all six.

Review

What do we know now about the third position of the guitar neck? Well, as we said, we know there are two C major scales in it, in a nice tight easy to learn package.

There are other scales handy, too. On the top E string, you can easily root A, Bb, B, and C. A little nudge up or down, and your hand is right on either C# or Ab.

Most experienced guitar players will tell you, in the real world, they don't play that low E string very much, anyway. For one thing, when you are in the basement, there is only one direction to go. For another, guitar is a treble instrument. We leave the bass lines to people who specialize in the bass lines.

That leads us to talk about the A string, frets five through eight. That A string. Again, a little low for leads, perfect for Johnny Cash type Luther rhythm twangs, with a much used D note, E note, and F note. Especially in the key of C Major, we seem frequently find ourselves landing on the G note, 10th fret. The E and F notes very often precede the G note. Even though that G note is technically on the fifth position, it is a frequent target of third position A string notes, E and F.

You may ask, with compassion,

"What about the fourth position?"

"Doesn't it count for anything?"

Well, the sad answer is, "Not much." At least, not when Playing in the key of C Major. Most of the time we just blow by the fourth position on the way to the fifth. It's kind of like New Jersey, in that respect. If you are in the keys of G or A, though, it is a different story. In those keys, the fourth is the killer position, one of the best on the neck. In the key of C, though, the fourth position kind of like "the upper third" or "the lower fifth." Sorry.

I digress.

We learned there is a great 1-3-5-1-3-5 triad combo of the C chord. That's the one with three notes in a row. On the bottom four strings, I have gotten so that I can cover the G Note with Finger One, the E note with Finger Four, the G and C notes with Finger three, and ring out a pretty respectable four note C chord. The bad dog, of course, slide ups and down the fretboard like a bottle neck on an open tuned power chord. I am getting ahead of myself, here, talking about technique. The fact is, once these fundamentals are in hand, the challenge, and the fun, it to see just what you can do with them.

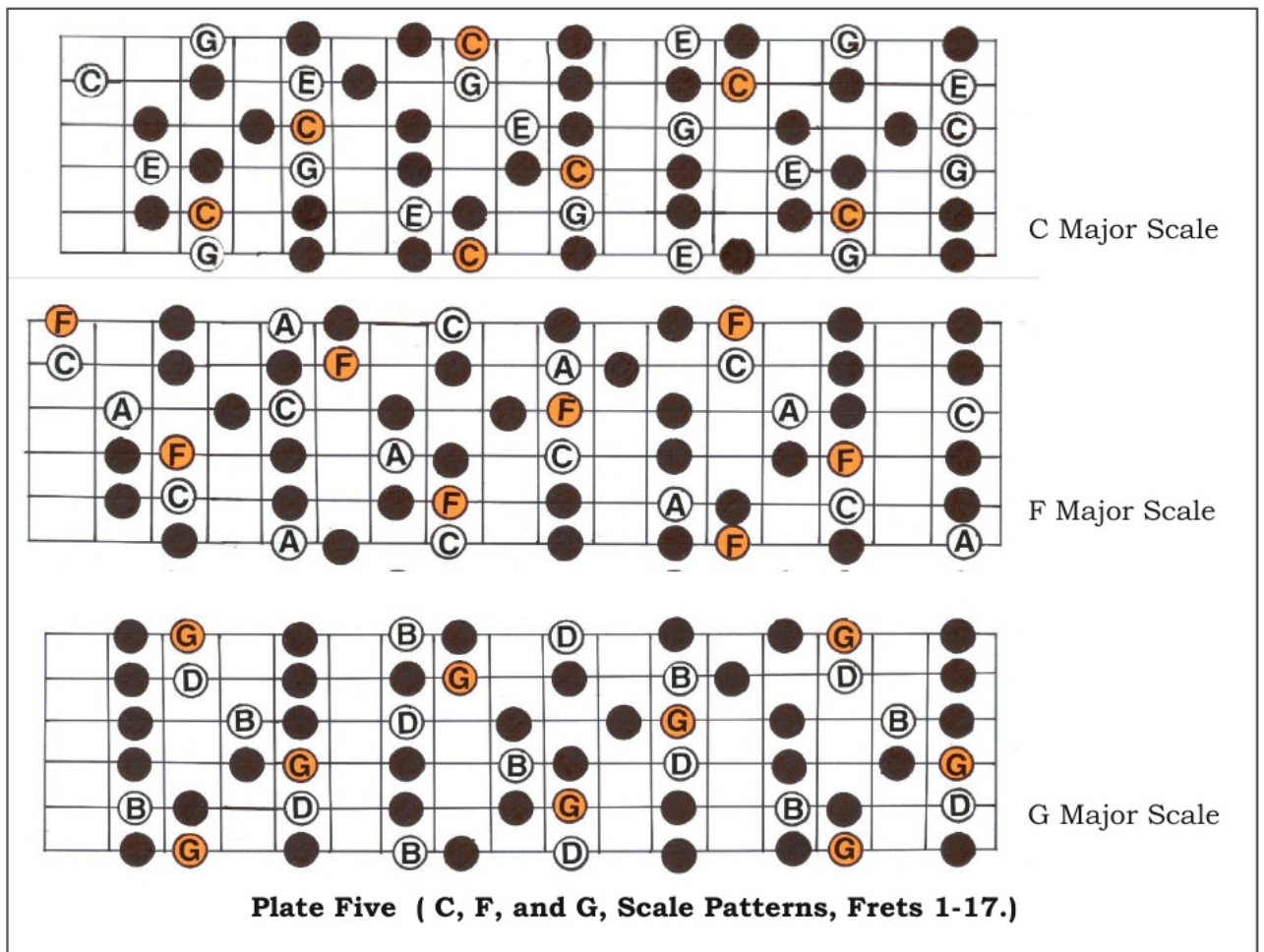
So, without further ado, here are more chord patterns played on the third position of the neck. We are going to dig them out of a chart that shows the triad patterns in three keys, C, F, and G, over six neck positions and 17 frets.

The first pattern: The F chord, second inversion 5-1-3-5-1-3 with the root on the sixth fret F note. You have already guessed the order of the notes is going to be C-F-A-C-F-A. The second inversion has the 5th degree (G note) as the bass.

Anecdote

Once I was playing for a church related group in the western USA. After the performance, an unassuming lady came to me and said, very softly, "Pick your chords apart."

I thanked her and thought about it and worked with the idea. Later, I recognized she had given me the secret to country music.



The 1 - 3 - 5 Chords in the Keys of C F and G Major

Here they are.

Looks like the inside of your computer, doesn't it?

The chart shows the scale patterns, with the chord notes marked and the roots highlighted.

Now you see why I went to all that trouble to isolate the individual triads in that session. Seeing them all together can be overcoming.

Making this chart may have been a lot of work for nothing, though. Once the reader learns the three basic triad positions, the next real challenge is to get to play them at any given time on any given scale.

Bonus:

Here is the link to a C major lead sheet for Amazing Grace taken from the Public Domain I just posted on Wiki Commons. If you use it for scale practice, play the top note of the duplexes.

https://commons.wikimedia.org/wiki/File:Amazing_Grace_Cmaj_Lead_Sheet.pdf

Here is the legalese for the Moderators:

[[File:Amazing Grace Cmaj Lead Sheet.pdf|thumb|Amazing Grace transposed and arranged by Edward S. Shaw, 2014, working from John Newton and R. M. McIntosh original sheet music reprinted in 1922 by Hall - Mack, Philadelphia, New Songs of Praise and Power, now in Public Domain.Original verses by John Newton, "Olney Hymns" Oliver (London) 1779]]

I'll post an MP3 backing track for Amazing Grace on my Soundcloud page as soon as possible.

This is to jump start your practice routine and get it into the Digital Age. This supplements your playing along with records.

That is www.soundcloud.com/ed_shaw

<https://www.facebook.com/edward.s.shaw>

That wraps up Part One. It'll keep you busy for a while. In Part two we will move on to another neck position, probably the fifth or sixth. Maybe we will treat the fifth and sixth positions as one. That is part of the learning strategy, anyway, that is, to learn the six individual positions and then gradually combine them.

In the next part, we will discuss how the intervals from the root to the fourth and the root to the fifth degrees map the common chord progressions.

Anyone bored, yet?