WILD STRINGDOM

JOHN PETRUCCI

DREAM THEATER'S

MASTER LEAD GUITARIST SHOWS YOU...

PROG-STYLE SHRED RUNS

MELODIC SHAPES

SCALE AND ARPEGGIO PATTERNS

UNUSUAL FRETBOARD PATHS

AND MUCH MORE!

GUITAR DVD

WILD STRINGDOM

CONTENTS

JOHN PETRUCCI

is the cofounding guitarist of the progressive metal band Dream Theater. Their new, self-titled album is out on Roadrunner Records.

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1 SHAPE UP

Recognizing repetitive fretboard shapes on all string groups

HELLO, AND WELCOME to my *Guitar World* instructional DVD. In these lessons, I'll share with you some of the guitar-playing concepts and approaches that have helped me develop my technique and overall playing style. I'd like to start off this first chapter with an examination of ascending scalar shapes that, by design, cover the majority of the fretboard. I have found such patterns to be very useful for both melodic and shred-style playing and also very helpful in regard to the "greater mission," which is to gain a fuller and deeper understanding of the construction of musical ideas within the framework of the guitar's fretboard.

The following examples are built from phrases made up of three notes per string that are played across two strings, resulting in various six-note shapes. I play these shapes in a rhythm of straight 16th notes, however, so there is an inherent "threes on twos" kind of rhythm that is alluded to throughout.

All of the phrases in this lesson are based on the E natural minor scale (E F♯ G A B C D), also known as the E Aeolian mode. In **FIGURE 1**, using alternate (down-up-down-up) picking throughout, I ascend the D and G strings, beginning on the note E on the D string's second fret, fretted with the index finger. I follow with two more notes on the D string, fretted with the ring finger and pinkie, and then I move over to the G string and play three ascending notes fretted in exactly the same manner—index to ring to pinkie.

On the upbeat of beat two, I shift up to the next fretboard position of E natural minor and use my index finger, middle finger and pinkie to sound three notes per string on the D and G strings. A third six-note shape then appears when we move up one more time, with the index finger, middle finger and pinkie employed for the wider stretch needed for the subsequent pair of three-note shapes. Notice that, as you ascend through this riff, there are slight variances in the shapes used on each specific string in order to accommodate the notes of E natural minor.

If we move the idea down to the bottom two strings, as shown in **FIGURE 2**, we find that the same fretting shapes are used, albeit in a different sequence.

FIG. 1 (0:33)

N.C.(Em)

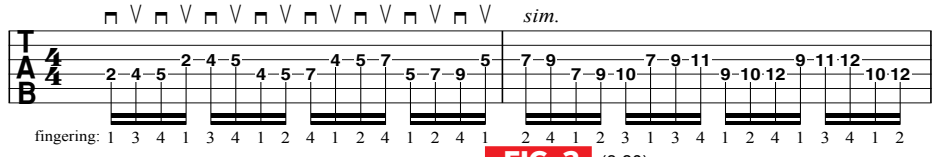


FIG. 2 (3:20)

N.C.(Em)

alternate pick throughout

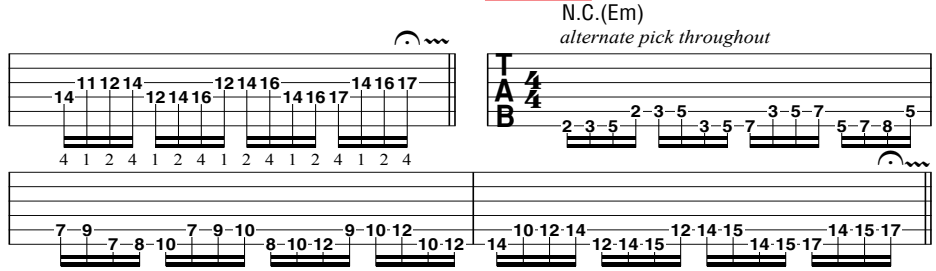


FIG. 3 (3:59)

N.C.(Em)

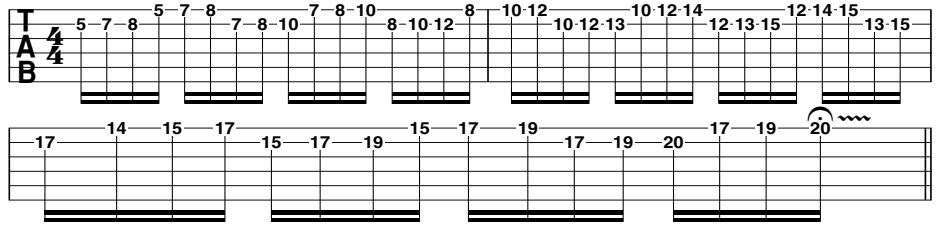


FIG. 4 (5:13)

N.C.(Em)

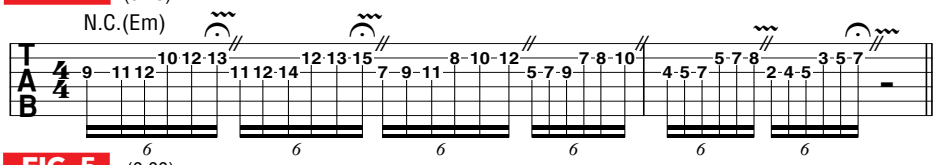
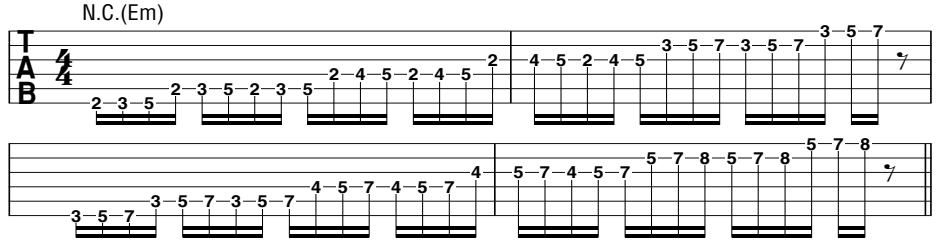


FIG. 5 (0:00)

N.C.(Em)



And the same is true when we move the idea up to the top two strings, as illustrated in **FIGURE 3**. Only three different physical shapes are used to form the three-note patterns, and this is good, because it enables one to develop muscle memory in the fret-hand, which is immeasurably beneficial. **THE ONLY EXCEPTION** to this consistency of shapes occurs when playing similar patterns on the G and B strings. That's because these two strings are tuned a major third apart, whereas the adjacent strings in the other pairs are tuned a perfect fourth apart. As shown in **FIGURE 4**, one must move up an additional half step—one fret—when crossing from the G string to the B. **FIGURE 5** offers a clearer representation of this B-string shift within a longer example that moves across all of the strings. Once you have these shapes under your fingers, experiment with moving them to every area of the fretboard, and then transpose the patterns to all 12 keys. dedicated, worthwhile practice ahead of you!

2 SHAPE UP, PART 2

Relocating familiar scalar patterns to different areas of the fretboard

LET'S CONTINUE with a topic that I addressed in PART 1: focusing on the formation of specific scalar patterns, or "shapes," and how to connect them while traversing the fretboard. To me, this concept and approach offer a sensible way to practice these ideas/patterns in order to build up one's chops while also increasing overall fretboard awareness and mastery of scales. The thing I like best about the licks I'm going to show you is that they force you to look at the fretboard beyond playing in a fixed position, or "box" pattern, as the runs move in a more *diagonal* pattern across the fretboard, which is much more in line with the way that I actually approach the instrument in regard to improvisational soloing.

FIGURE 1 illustrates a pattern based on the E Aeolian mode (E F♯ G A B C D) and is played in steady 16th-note triplets. When ascending and descending, the shapes are created by a three-notes-per-string approach while remaining *diatonic* to (within the scale structure of) E Aeolian. I alternate pick (down-up) throughout, starting on a downstroke. This exercise provides a great workout for both hands, in that the fret-hand fingerings change often, from index-middle-pinkie to index-ring-pinkie, and it requires a good amount of stamina and accuracy to alternate pick every note in this five-bar run with absolute precision and clarity. I recommend that you practice it as slowly as possible at first, with strict attention paid to clear articulation of every note while striving to keep both hands as relaxed as possible. Then, gradually increase the tempo. Try to keep your fret-hand fingers arched over the strings, positioned so that the fingertips are coming down onto the board from directly above, as this will help you attain a sharper, more defined note.

Throughout the first three bars and through beats one and two of bar 4, the pattern that ascends on beats one and three is repeated in reverse, in descending order, on beats two and four. Spending a little extra time like this on each pattern/shape should facilitate the memorization of the pattern as well as provide an extra workout designed to bolster your technique. Because the patterns are played in reverse order on every other beat, the highest note is always repeated on the downbeat.

FIG. 1

Em

alternate pick throughout

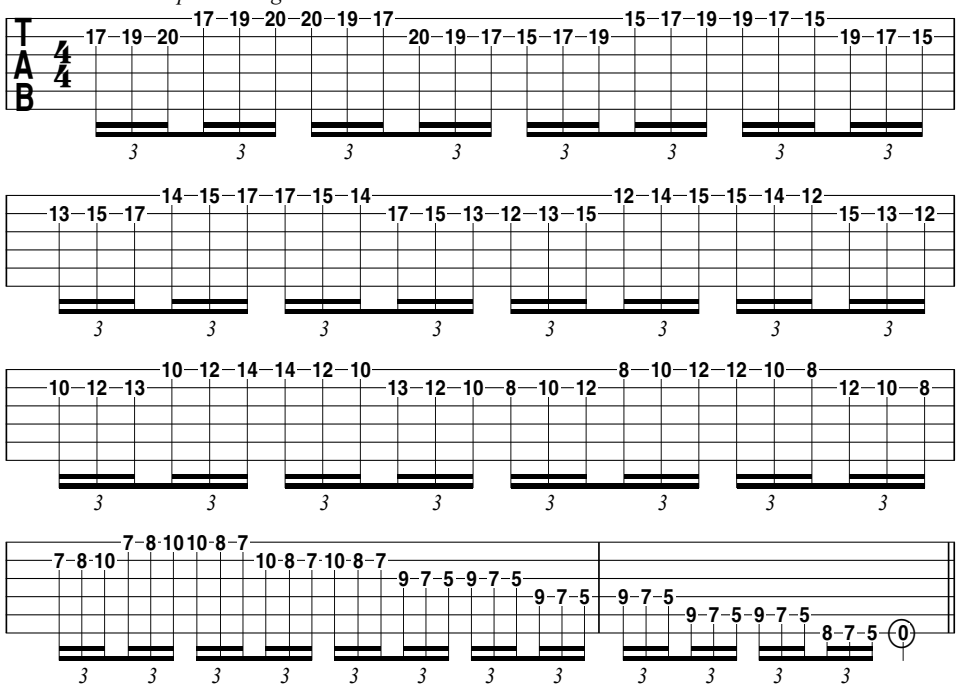


FIG. 2

Em

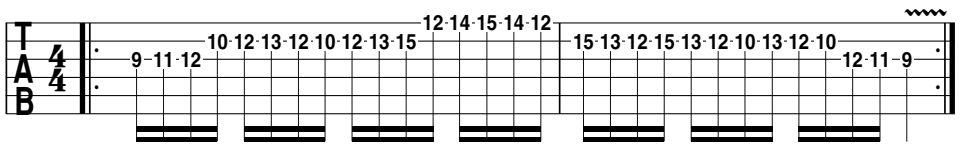
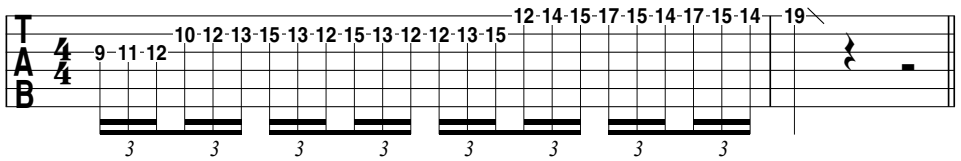


FIG. 3

Em



I like to accent these high notes the second time through by picking them a little harder, which serves to add rhythmic drive to the phrase. At the end of the pattern, beginning on beat three of bar 4, I repeatedly descend through a new pattern, one built from the repetition of the previous three-note melodic shape.

Now let's take a similar idea and apply it to straight 16th notes. In **FIGURE 2**, I play lines based on eight-note patterns in E Aeolian that ascend through the scale one degree at a time in that I follow the last note of each eight-note "cell" by moving up to the next scale degree and starting a new cell. In **FIGURE 3** I apply the same idea to the 16th-note-triplet rhythm shown initially in **FIGURE 1**.

Once you have a firm grasp of these patterns, try playing them in every area of the fretboard and on every group of strings that you can think of. If you then expand the exercise to other scales and modes, you will have many hours of dedicated, worthwhile practice ahead of you!

3 MELODIC MODULES

Visualizing melodic shapes on the fretboard

IN THIS CHAPTER, I'LL delve deeper into concepts for expanding scalar ideas across the fretboard. As in previous chapters, I'll show how to move *diagonally* across the fretboard to connect scale positions, an approach that I employ to play melodic phrases and solos.

Let's start with phrases based on the E Aeolian mode, or E natural minor scale (E F♯ G A B C D). **FIGURE 1** details three three-note phrases, each played in a three-notes-per-string pattern, starting with the index finger. I begin in seventh position and play through the first six notes of E Aeolian. In bar 2, I shift up to ninth position and begin on the fifth degree of E Aeolian, B, sounding the notes B C D E F♯ G. Finally, I move up to 11th position to begin on the second, or ninth, F♯, sounding the notes F♯ G A B C D. The high D at the end of the phrase is useful, as it can easily be bent up one whole step, to the E root. Connecting all three patterns this way, I can move up the fretboard in a diagonal path that covers a lot of range.

A great way to practice this pattern is within a steady series of eighth-note triplets, as seen in **FIGURE 2**. Use alternate (down-up) picking throughout, and strive to make the position shifts seamless. Once you have these "shapes" for each six-note group under your fingers, you should be able to move freely from the A string to the D and G and back, using just your ear to guide the melodic phrases you create. Within the first six-note phrase, we have the notes of an E minor triad: E G B.

Now let's look at how we can apply notes from this series to create different chord types. In **FIGURE 3**, I demonstrate voicings of Em, Esus2 and another "wide-stretch" Em voicing from the notes found in this pattern. I can then play melodic fills based on it. **FIGURE 4** offers a more expanded example of this concept.

I'll often use this approach to create chord-melody-type ideas, such as that shown in **FIGURE 5**. Here, I'm using the open low E note as a pedal tone played against various two-note chords. I also like incorporating the ninth, F♯, into Em voicings, resulting in the wide-stretch Em(add9) shapes shown in **FIGURE 6**. **FIGURE 7** puts a twist on this idea by adding the second, also F♯, to an E minor triad, E G B. Lastly, I use note combinations from the pattern to create a series of two-note chords that live in E Aeolian, as demonstrated in **FIGURE 8**.

FIG. 1

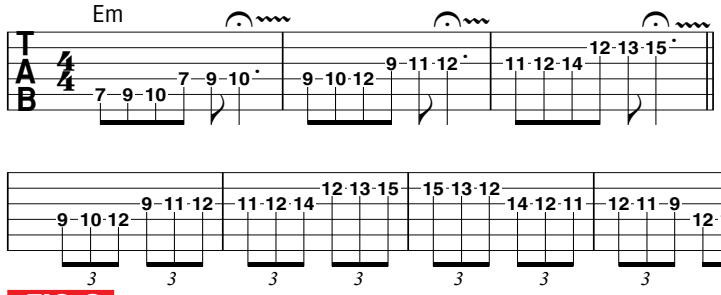


FIG. 2

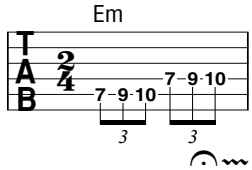


FIG. 3

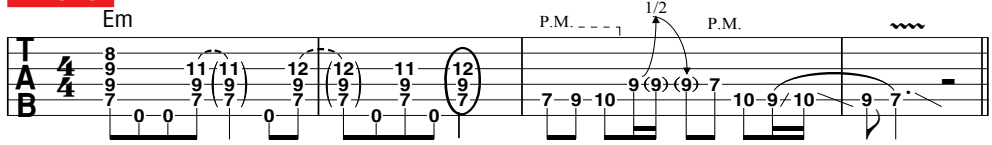


FIG. 4

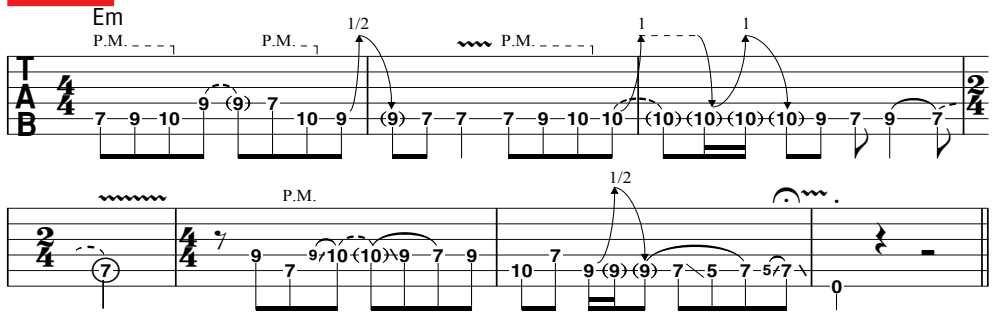


FIG. 5

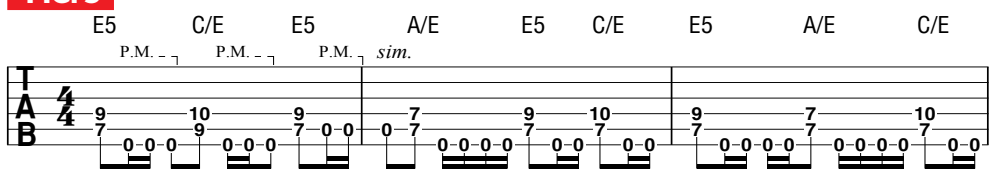


FIG. 6

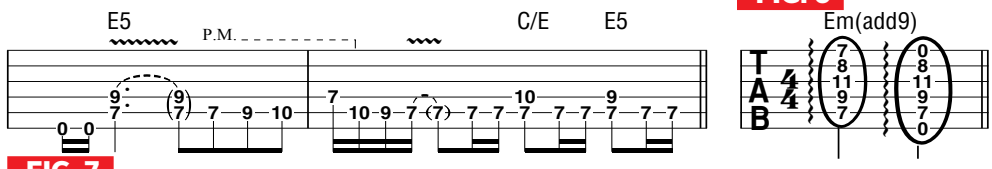


FIG. 7

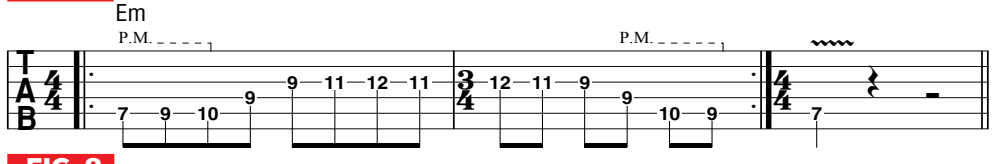
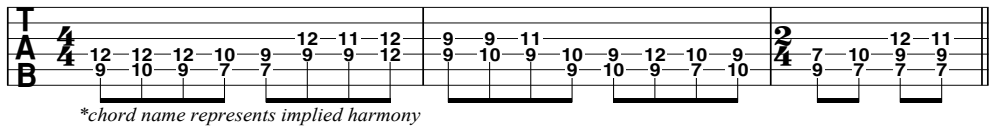


FIG. 8



**chord name represents implied harmony*

4 OPTICAL ILLUSIONS

Moving across the fretboard in unusual ways to produce unique runs

OVER THE YEARS, people have noticed that when I play certain runs, my fingers move in the opposite direction of the notes that they hear. For example, as my fret hand moves up the fretboard, the sequence of notes that is heard descends (and vice versa). For this chapeter, I've put together a few runs that demonstrate this unusual approach as applied to both ascending and descending patterns. This kind of "positional wizardry" can be used to generate interesting melodic patterns that can be used in a variety of ways.

In **FIGURE 1**, I begin on the low E string in a high fretboard position and end on a high string in a lower position. The run is based on the A Aeolian mode (A B C D E F G), which is also known as the A natural minor scale and is intervallically spelled 1 2 ♭3 4 5 ♭6 ♭7. The overall concept behind this line is a consistent progression of six-note groups, or "cells," that move to different areas of the fretboard while remaining *diatonic* to (within the scale structure of) A Aeolian. The run is played in a rhythm of even 16th notes, which, due to its inherent four-note grouping, results in a more unusual melodic "shape" than if I had played the pattern in a triplet or sextuplet rhythm.

I begin by ascending through the first six notes—E F G A B C—then "backpedal" slightly and descend to the previous two notes, B and A, in alternating fashion. The next six-note phrase begins on G, two scale degrees higher than the previous starting note, and consists of the notes G A B C D E, played in ascending form. Once again, I alternate between the last two notes in the same way, which sets up the beginning of the next six-note phrase, starting on B on the fourth string's ninth fret, which is two scale degrees higher than the previous starting point. This "up-six, back-two" pattern then repeats three more times, culminating on a high A root note. Be sure to use consistent alternate (down-up-down-up) picking throughout this figure, and, as always, strive for crystal-clear articulation.

In **FIGURE 2**, I begin on the high E string and work my way up the fretboard while descending gradually on each lower string, pitch-wise. Like **FIGURE 1**, this run is also based on A Aeolian/natural minor and six-note "cells" played in a 16th-note rhythm. After descending through the first six notes—F E D C B A—I quickly shift up the fretboard to a note that is three scale degrees higher in the scale, D, and then repeat the descending six-note pattern. This second sequence ends on F (third string, 10th fret), so I begin the next six-note sequence three scale degrees higher, on B (third string, 16th fret). This process repeats three more times, culminating in a low A root note (sixth string, 17th fret). Again, alternate picking is utilized throughout, so strive for even and precise execution.

FIGURE 3 provides a clearer picture of the shapes used in **FIGURE 2** by illustrating them as eighth-note triplets. Here, one can more easily see how the six-note pattern descends through the notes of A natural minor across two beats at a time. When playing the run in a straight 16th-note rhythm (rather than in an eighth- or 16th-note-triplet rhythm), be cognizant of the difference in feel and where the downbeats fall.

FIG. 1

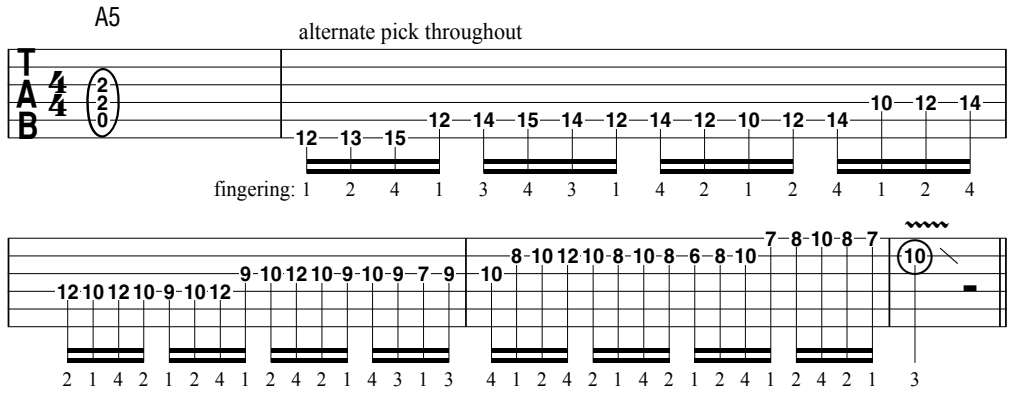


FIG. 2

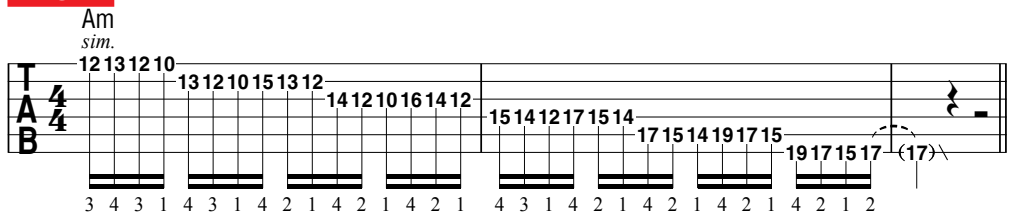
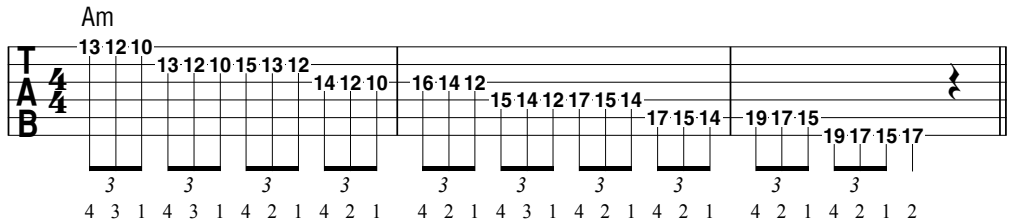


FIG. 3 as triplets



5 THE POWER OF THREE

Using triad arpeggios to imply more complex chord qualities

IN THIS CHAPTER, I'm going to demonstrate how one can utilize simple triadic shapes and patterns in order to imply more complex and varied chord qualities. I find this to be a very cool and useful improvisational tool, because you can apply it to playing over either a chord progression that you want to outline melodically or over a static pedal tone or one-chord vamp over which you want to superimpose shifting harmonic colors.

Let's begin by outlining, and then combining, simple major and minor triads. **FIGURES 1** and **2** illustrate the notes of a G major triad—G B D—played in seventh position. The relative minor triad of G major is E minor, and **FIGURE 3** depicts an E minor triad played in the same position. Notice that both triads share two of the same notes, G and B.

The "magic" happens when we combine these two triads, and we can utilize and analyze the resulting sound within either a G major or an E minor context. **FIGURE 4** shows the two triads combined, so in essence we've simply added the E note to the G major triad. Adding E, the sixth of G, implies the sound of a G6 chord. If we play the same pattern over an E minor tonality, the resultant chordal implication is Em7, as shown in **FIGURE 5**, and the single-note triadic-based phrases evoke a different harmonic impression.

Let's now apply this approach to a different tonal center. As shown in **FIGURES 6** and **7**, the combination of the notes of a C major triad—C E G—and an A minor triad—A C E—result in either a C6 sound, as shown in **FIGURE 6**, or an Am7 sound, as shown in **FIGURE 7**. The beauty of this exercise is that it demonstrates how the study of one theoretical concept and its associated single-note patterns can easily be applied to more than one tonal environment. On a grand scale, this means that the study of one idea can be applied to many different harmonic environments, yielding a broader understanding of music theory as well as heightening one's fretboard awareness.

Another great way to use this concept is to combine two different triads that are found within the same tonal center. For example, within the G major scale (G A B C D E F♯), one can build a series of seven different triads by starting from each note in the scale and adding thirds above the starting note while remaining diatonic to (within the scale structure of) G major. If we start from B, the third degree of the G major scale, a B minor triad is formed by playing B D F♯, notes that are all thirds apart, as they occur within the G major. **FIGURE 8** illustrates a phrase that combines G major and B minor triads. We can then apply this approach to the relative minor of G, Em7, as shown in **FIGURE 9**. When looked at as a whole, combining G major and B minor triads implies a Gmaj13 chord, as shown in **FIGURE 10**.

FIG. 1 G major triad

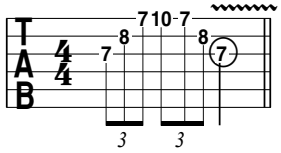


FIG. 2

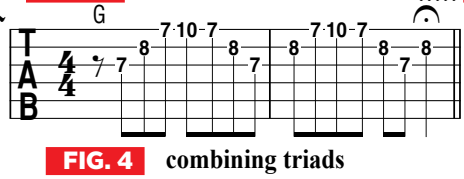


FIG. 3 E minor triad

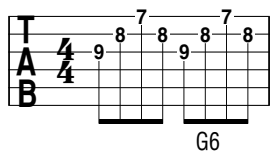


FIG. 4 combining triads

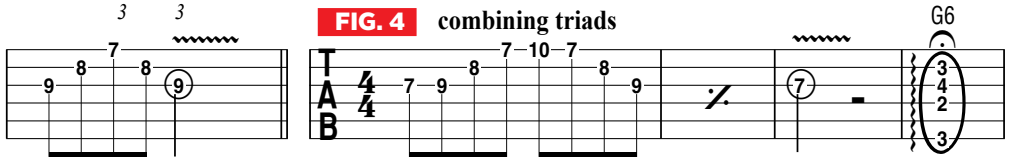


FIG. 5

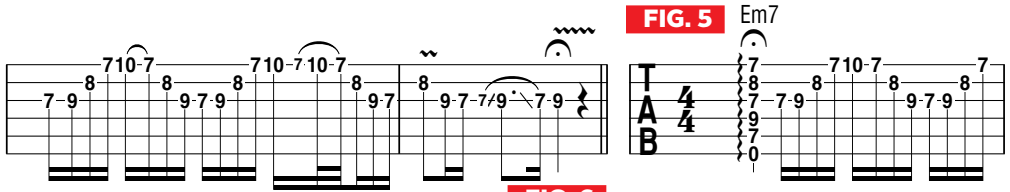


FIG. 6

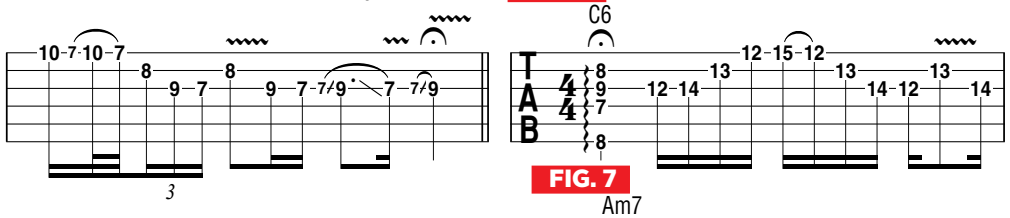


FIG. 7

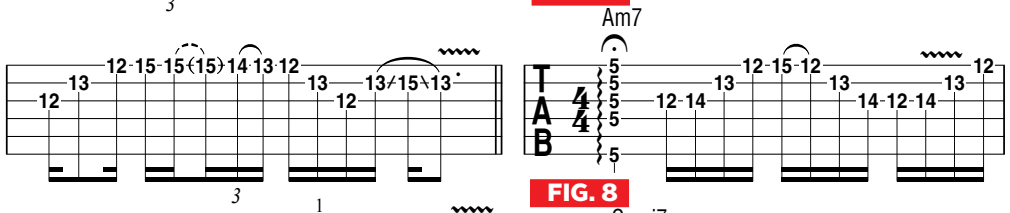


FIG. 8

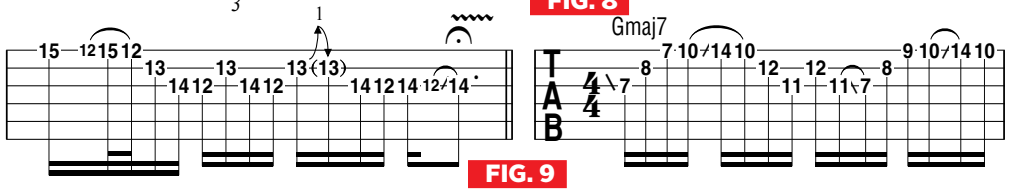


FIG. 9

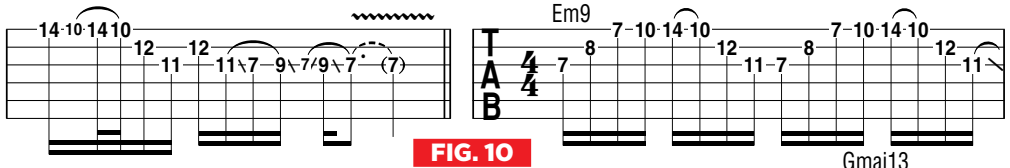
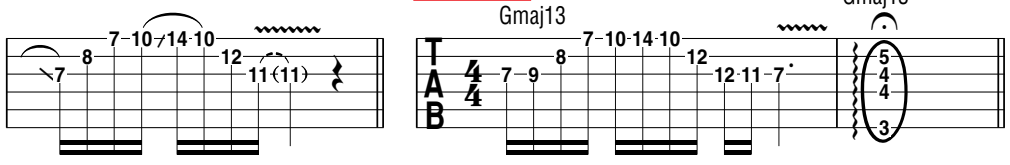


FIG. 10



6 POLY-SCIENCE

Combining triad arpeggios to form polytonal chordal allusions

AS I HAVE discussed in previous chapters, I often use triadic arpeggio forms within my riffs and solos as a tool to create rich-sounding, polychordal sounds. I'd like to continue in that vein in this chapter by presenting different ways in which to move from one arpeggio form to another, using a series of specific triads that complement one another well.

Let's start with the triads F♯ diminished and D major, as shown in **FIGURES 1** and **2**, respectively. The F♯ diminished triad is built from the notes C, F♯ and A, and the D major triad is built from almost the same set of notes, D, F♯ and A. Both **FIGURES 1** and **2** show these triads as played in fifth position for comparison.

If I wanted to get a bluesy vibe, I'd use the D major triad and combine it with the F♯ diminished triad, as demonstrated in **FIGURE 3**. Here, the C note is heard as the ♭7 (flat seventh) of D, implying a D dominant-seven tonality.

Now let's try combining the F♯ diminished arpeggio with an A minor arpeggio—A C E—as shown in **FIGURE 4**. The combination of these two sets of notes gives an F♯m7♭5 arpeggio (F♯ A C E: see **FIGURE 5**). These licks work well over an Am chord, as the inclusion of the F♯ note, the major sixth of A, implies an Am6, A Dorian–mode type of sound.

As you probably have noticed, all of these arpeggios are played on the top three strings, and I often like to incorporate sweep picking when using arpeggios like this. **FIGURE 6** illustrates a combination of an Em7 arpeggio—E G B D—and a Gmaj7 arpeggio—G B D F♯. As denoted in the example, in order to sweep pick these arpeggio shapes properly, begin with an upstroke on the first note and then use a single downstroke to *rake* across the top three strings to play the next three notes. The form ends with another upstroke. I then slide up to 10th position and reverse the process, beginning with a downstroke and then using a single upstroke to rake across the top three strings, moving from high to low. **FIGURE 7** offers an example of applying this approach to the chord progression Em7 Am9 F♯m7♭5 Gmaj7.

FIG. 1 F♯ diminished triad

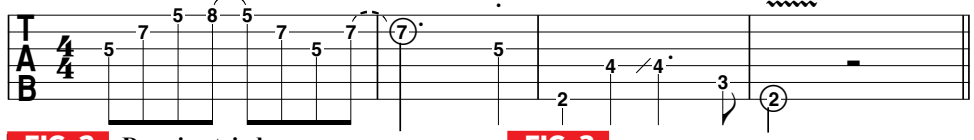


FIG. 2 D major triad

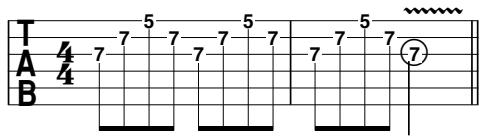


FIG. 3

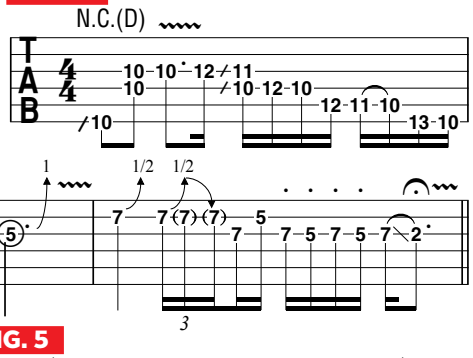


FIG. 4 A major arpeggio

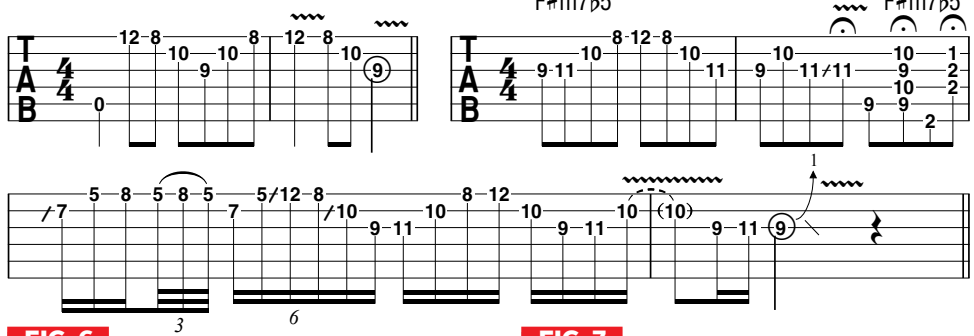


FIG. 5

FIG. 6

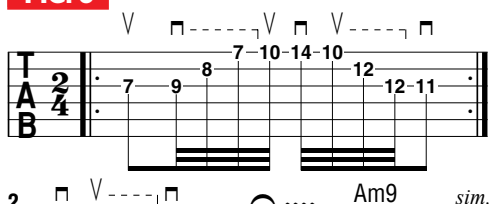
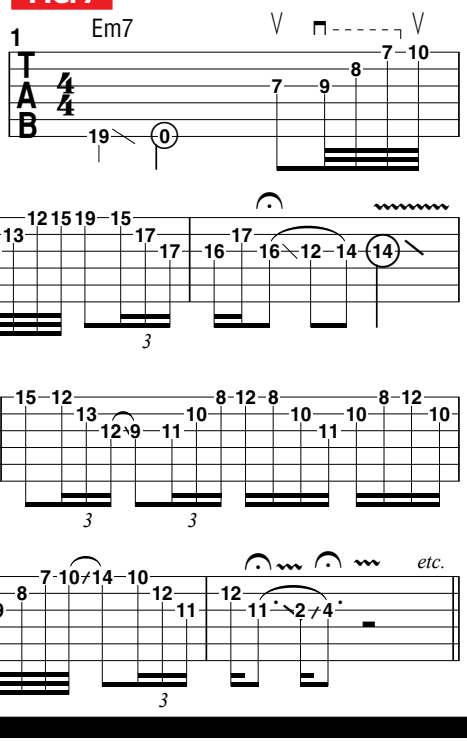


FIG. 7



7 HOW TO PLAY FAST

BONUS SECTION!

How to take your playing into the hyper-speed realm.

WHEN I WAS FIRST learning how to play fast, I emulated guitarists like Steve Morse, Al Di Meola and Allan Holdsworth. The funny thing is that these players represent two totally different schools of thought when it comes to note articulation. Morse and Di Meola alternate-pick every single note in order to achieve a rhythmically driving *staccato* (percussive) attack, while Holdsworth picks as rarely as possible, relying mostly on fret-hand pull-offs and hammer-ons to sound the majority of the notes and achieve a softer note attack and a fluid, rolling sound—what's known as *legato* phrasing. Back in those early days, I thought you had to do one or the other, so I would practice picking every single note, like Steve and Al, and go into *legato* mode, like Allan, playing just about everything with just the left hand.

The fact is, I thought using hammer-ons and pull-offs was cheating, even though it did sound smooth and fast. I soon came to realize that it's not cheating. What's more, you can play a lot faster when you use a combination of alternate picking and legato phrasing. Just look at Eddie Van Halen, who combines these two approaches brilliantly, and the late Shawn Lane, who was the king of playing in this style.

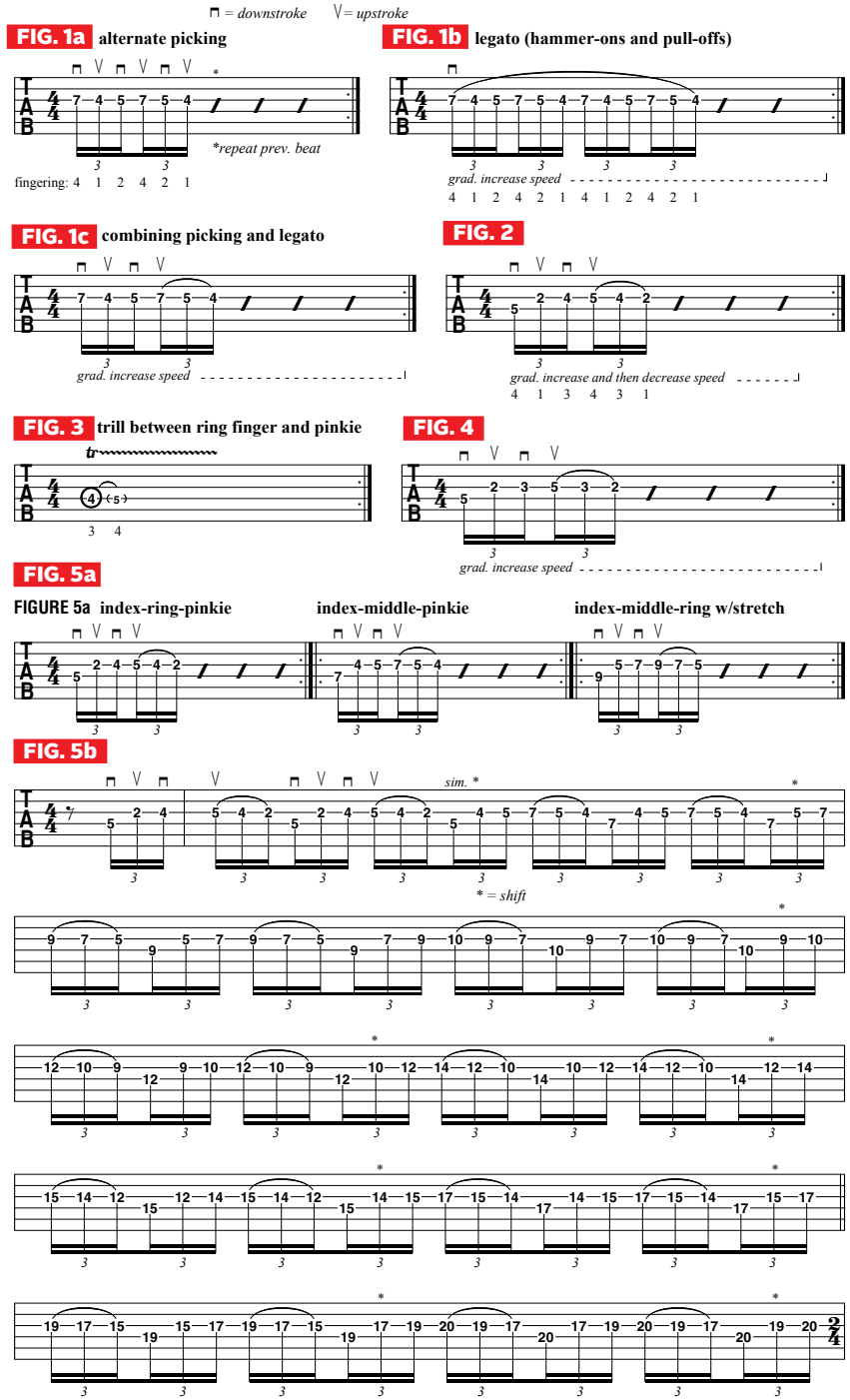
In this lesson I'm going to show you some effective technical approaches to this way of playing and help you elevate your chops to the hyperspeed level. I'll start by demonstrating a few different ways to combine alternate picking with hammer-ons and pull-offs, beginning with small, compact melodic shapes, and then build from there.

Here's an Yngwie Malmsteen–style percussive lick that's articulated with alternate picking throughout (**FIGURE 1A**). It's based on a rhythm of 16th-note triplets, and the picking pattern is down-up-down, up-down-up for each pair of triplets. If I were instead to play the same lick picking only the initial note and sounding the rest of the notes with hammer-ons and pull-offs, it would sound like this (**FIGURE 1B**).

A great way to combine the two techniques with this note sequence is to pick the first four notes, ending on an upstroke, and then sound the last two notes with pull-offs (**FIGURE 1C**). Ending the picking pattern with an upstroke allows you to *snap* the string against the fretboard and achieve a "slap" effect. This effect is much more effective in the higher register than the lower register. When played really quickly, ending on the upstroke creates a *whipping* sound. If you have enough gain (preamp distortion) and use your guitar's neck pickup, as I like to do for this kind of lick, you get a "fluttering" kind of sound. Played this way, the lick sounds like it's broken up into "spurts," as opposed to hearing the evenly percussive attack of consistent alternate picking (**FIGURE 1A**).

Let's take this concept a bit further and build more licks using this approach while introducing some string crossing. Instead of playing the first note on the G string, let's begin the lick with a note on the D string (**FIGURE 2**). Start slowly and then build up speed gradually while striving to play as cleanly as possible.

A big part of being able to play this lick fast and



7

clean is to have good dexterity between the fret hand's ring finger and pinkie, which is difficult to develop. An effective way to do this is to play hammer-on/trill exercises with these two fingers. It's a little grueling, but practicing licks that use this fingering combination—as opposed to favoring one that's easier to play with, such as the more commonly used index-middle-pinkie combination (**FIGURE 4**)—is great for fret-hand dexterity. Ultimately, you want to be able to do both with equal comfort.

Let's take this idea and move it up the fretboard in a series of alternating "shapes," not necessarily staying *diatonic* (within a fixed scale structure) to one key. Here, I'm using three shapes (**FIGURE 5A**): I begin with the index-ring-pinkie shape from **FIGURE 4**, followed by index-middle-pinkie, and then index-middle-pinkie with a stretch, covering a five-fret span, from the fifth fret to the ninth. When doing five-fret stretches higher up the neck, you can use an index-ring-pinkie fingering combination.

Play these three shapes in sequence, moving from second to fourth to fifth positions, and then start the pattern again, moving from seventh to ninth to 10th. Then play the sequence twice more, moving from 12th position up to 20th, and then back down (**FIGURE 5B**).

At this speed, I'm pretty much playing near the limit of how fast I can alternate pick. If I really wanted to go any faster, I could pick back by the bridge saddles and really get into it, but it's much easier to instead use this "hybrid" approach of alternate picking combined with pull-offs. This technique enables you to move up to the next level without putting too much strain on your picking hand. And equally important, it *sounds* less strained.

Let's kick it up a notch and add more notes on the B string. This next pattern (**FIGURE 6**) alludes to a hybrid A Dorian/blues scale (A B C D E♭ E F♯ G. Here, I'm playing three notes per string in fifth position using the index finger, ring finger and pinkie. You should be able to see that each successive "shape" presented throughout this lesson is built upon the previous technique, so it's imperative to work diligently on the first two shapes so that you'll be able to execute this last one with speed and precision.

Once you've become comfortable with these patterns, try expanding upon the ideas embodied in them by moving freely into more standard rock-type licks, such as this (**FIGURE 7**). After all the intense hours of diligent practice, the fun part comes in applying new techniques to freeform musical expression.

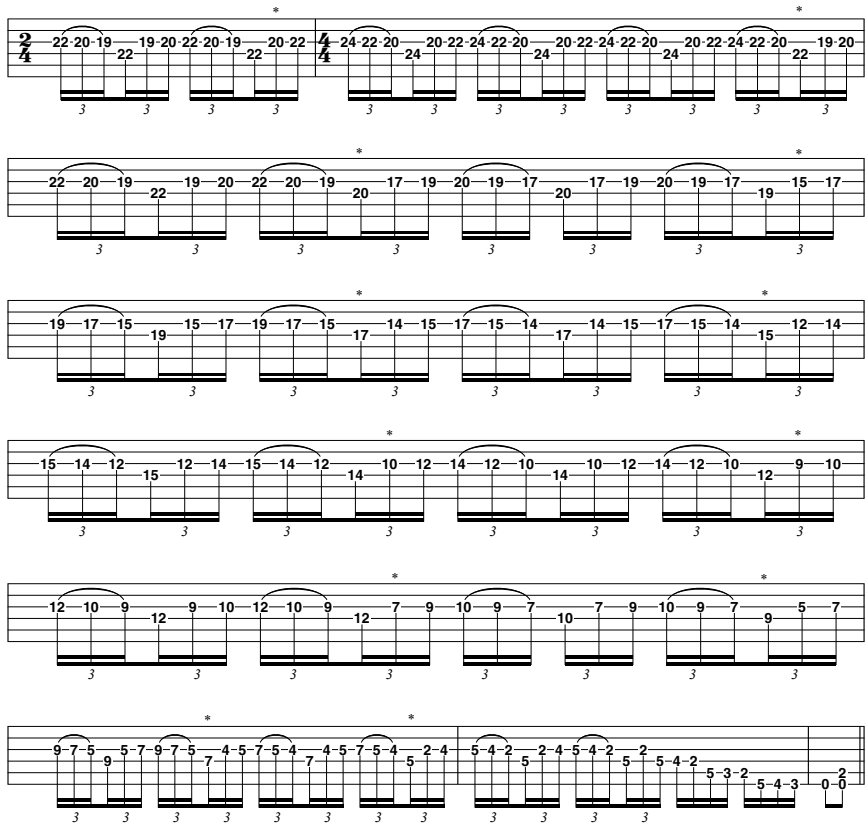


FIG. 6

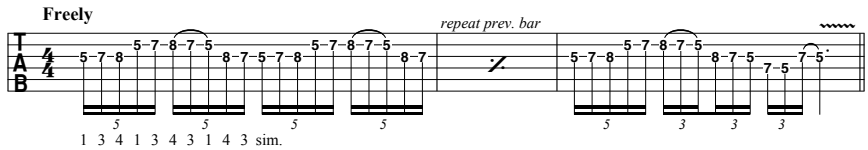
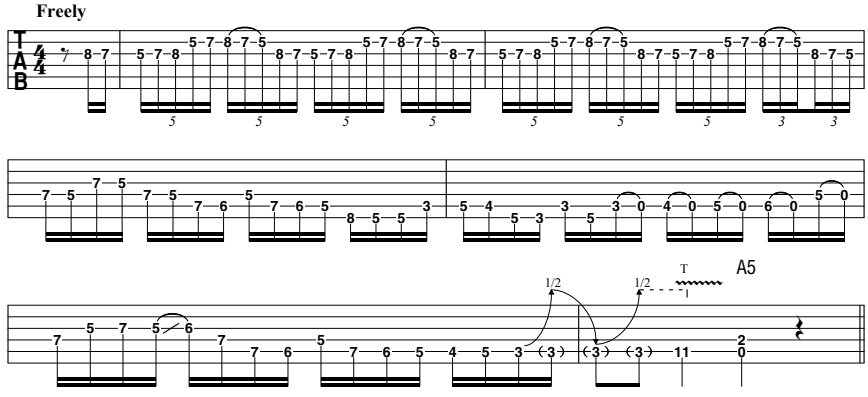


FIG. 7



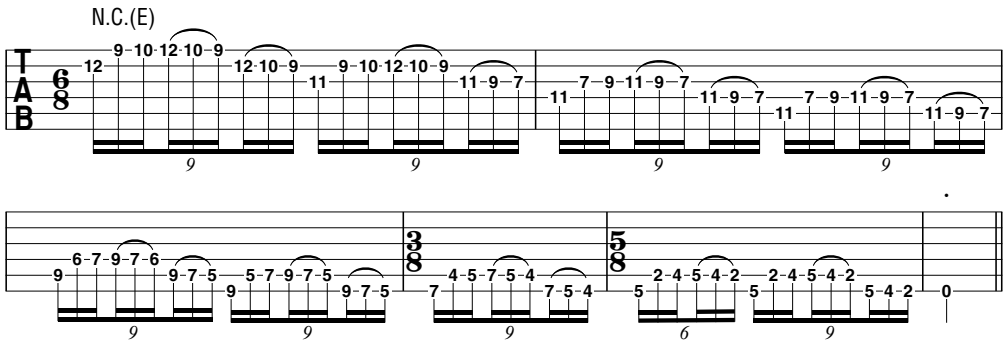
8 BETCHA CAN'T PLAY THIS!

E Mixolydian cascading triplets

THIS IS A DESCENDING E Mixolydian [E F♯ G A B C D] run that moves across the strings and eventually down the neck in a cascading type of contour. It's based on a recurring nine-note melodic motif of three 16th-note triplets, with three alternate-picked notes followed by two double pull-offs.

I begin in ninth position with a fairly compact shape that spans the ninth to 12th frets. At the end of bar 1 and moving into bar 2, the fret hand shifts down two frets and spreads out to cover a four-fret span, from the seventh fret to the 11th. Use your first, second and fourth fingers to fret the notes. The fret hand quickly shifts down to a lower position at the beginning of bars 3, 4 and 5, so try to make these transitions as smooth and seamless as possible.

Make sure your pull-offs are loud and clear, and use the palm of your pick hand to mute the unused lower strings during bars 1 and 2.



9 MELODIC PUNCH

Two-notes-per-string Arpeggios

THIS LICK IS a sequence of fast, descending arpeggios based on the E Aeolian mode (E F♯ G A B C D) and performed in a deliberate two-notes-per-string pattern. I use strict alternate picking throughout the entire lick, beginning on a downstroke.

When playing licks or melodies using two notes per string, many guitarists rely almost exclusively on their fret-hand ring and index fingers, even though the pinkie can more easily and comfortably reach most wide-interval stretches. If you find you're consistently shunning your pinkie during solos, I encourage you to follow my example and advice and practice this lick using your pinkie for the wide-interval stretch at the beginning of each arpeggio. You'll receive a great pinkie workout, after which you may begin to find yourself more at ease and sure-fingered when performing other licks incorporating wide-interval stretches. Fingering prompts in the notation illustrate my specific fret-hand fingerings.