

**GETTING STARTED IN**  
**CHART**  
**PATTERNS**

**SECOND EDITION**



**THOMAS BULKOWSKI**

*author of Encyclopedia of Chart Patterns and the Evolution of a Trader series*

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———— **Getting Started in** ————

# **CHART PATTERNS**

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— **Getting Started in** —

# **CHART PATTERNS**

**S E C O N D E D I T I O N**

**Thomas Bulkowski**

**WILEY**

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*To Mary Schramski*





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# Contents

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<b>Preface to First and Second Editions</b>	<b>ix</b>
<b>Acknowledgments</b>	<b>xi</b>
<b><u>Chapter 1</u></b>	
<b>Introduction to Chart Patterns</b>	<b>1</b>
<b><u>Chapter 2</u></b>	
<b>Identifying Chart Patterns</b>	<b>7</b>
<b><u>Chapter 3</u></b>	
<b>The Truth about Trendlines</b>	<b>17</b>
<b><u>Chapter 4</u></b>	
<b>Support and Resistance</b>	<b>35</b>
<i>The Most Important Chart Patterns</i>	
<b><u>Chapter 5</u></b>	
<b>Ten Buy Signals</b>	<b>53</b>
<b><u>Chapter 6</u></b>	
<b>Ten Sell Signals</b>	<b>119</b>
<b><u>Chapter 7</u></b>	
<b>Special Situations</b>	<b>191</b>
<b><u>Chapter 8</u></b>	
<b>Busted Patterns</b>	<b>225</b>
<i>Making Money by Trading Failure</i>	

**Chapter 9**

<b>More Trades</b>	<b>255</b>
<i>Putting It All Together</i>	

**Chapter 10**

<b>The Art of Trading</b>	<b>285</b>
<i>Checklists</i>	

**Chapter 11**

<b>Crunching the Numbers</b>	<b>323</b>
------------------------------	------------

<b>Glossary</b>	<b>327</b>
-----------------	------------

<b>Visual Index of Chart Patterns</b>	<b>333</b>
---------------------------------------	------------

<b>About the Author</b>	<b>339</b>
-------------------------	------------

<b>Index</b>	<b>341</b>
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## Preface to First and Second Editions

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I read that a chartist becomes world class after viewing a million chart patterns. If you analyze one pattern per chart on 250 stocks each trading day, it'll take 15 years to reach a million. Fifteen years! We don't have that much time. I'm asking for only a few hours.

Before we go any further, look at the cover of this book. See where it lists the price? If you buy this book and make one profitable trade because of it, that money will be well spent. That's cheap education, but I'm going to give you so much more.

Chart patterns are the footprints of the smart money, but the dumb money is mixed in as well. Together their footprints leave a trail. I'll help you follow that trail so that your dream of earning a million can become reality.

One investor did it. She read this book, made a million. It took her a year. But she's the outlier. You won't be that lucky.

So let's begin by discussing chart patterns, starting with the basics: trend-lines, support, and resistance. Then let's discuss the buy and sell signals, the special situations, and the busted patterns. I'll sprinkle the text with actual trades that still teach valuable lessons. Near the end of the book, I'll include a trading checklist and a list of things we've learned along the way. Don't overlook the visual index of chart patterns. It'll make identification easy.

Throughout the book, I gear the presentation to the beginning investor or trader, but it comes with tips and techniques that will delight and inform the professionals, too.

What differentiates my books from others is that I prove what I say. The statistics mentioned throughout this book are not guesses nor are they copied from others, but are the results of studies I conducted using tens of thousands of chart patterns that I found.

This edition updates most of the statistics. Each statistic represents the performance of hundreds of patterns traded perfectly, without commissions or fees. You won't be able to achieve those returns, but these numbers provide a basis for comparison, they provide a foundation for dreams.

Let those dreams carry you away. And when you return to earth, let's get to work on that million.

Begin with this book.

Buy it.

Read it.

Make money.

Maybe a million.

Thomas Bulkowski

March 2014

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### Other Books by Thomas Bulkowski

*Encyclopedia of Candlestick Charts*

*Encyclopedia of Chart Patterns*, Second Edition

*Fundamental Analysis and Position Trading: Evolution of a Trader*

*Swing and Day Trading: Evolution of a Trader*

*Trading Basics: Evolution of a Trader*

*Trading Classic Chart Patterns*

*Visual Guide to Chart Patterns*

### Regarding Serious Inquiries

Visit my website at [www.thepatternsite.com](http://www.thepatternsite.com). The site contains over 650 articles I have written on price patterns and trading; it's free, and there is no registration. If you would like to contact me, e-mail me at [tbul@hotmail.com](mailto:tbul@hotmail.com).

T. B.



# 1

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## Chapter

# Introduction to Chart Patterns

**A**n investor I'll call Gina e-mailed me her story. She had saved \$100,000 in her IRA. Then she bought this book and used its teachings to grow her account. She bought exchange-traded funds that tracked the metals. A year later, her account was worth \$1.1 million. She made a million in one year. Wow.

I had a hard time believing her story so I talked to my brother. "She's an outlier." She's the exception to the rule, the one person in the world that makes it to the very top. She was in the right place at the right time and did everything right to make a bundle.

If Gina can do it, why not you?

## What Are Chart Patterns?

Have you ever strolled into the woods and found footprints in the soil? If it's muddy, you may see bird tracks. You may also find larger tracks from cats, dogs, and even deer. You don't see the actual animal, just their tracks. If you follow the tracks, perhaps you can discover a beautiful creature.

When people trade a stock, they leave behind a footprint. Volume increases. The price bar printed on the chart may also change. String enough of those price bars together and they form patterns, which we call chart patterns.

**chart patterns**

chart patterns are recurring formations that appear on price charts. They reflect the trading behavior of professional traders, companies, and individuals.

I used to think that *chart patterns* were the footprints of the smart money. I think the dumb money steers the feet, too. What does that mean?

Imagine that you sell office supplies to a retailer called BOSS (Best Office Supplies, a fictional company), which, in turn, sells them to the public. Your business is prospering because BOSS is buying lots of your products. With that knowledge, you purchase their stock.

Six months later, you notice that the rate of their purchases has slowed. Uh-oh. It could be a seasonal fluctuation. Fewer people need office supplies when they are on vacation during the summer. But the slowdown persists. You decide to sell the stock.

Imagine another scenario when you meet your good friend Barry, the CEO of BOSS. He is looking glum, as if someone spit into his cereal. He shakes his

head and remarks, "We're being sued. If they win, we're sunk. If we win, we still take a big hit from legal fees."

"Your stock is going to take a pounding."

"No kidding," he says.

The next day you dump your holdings in BOSS.

## Enter the Retail Investor

It's not only the smart money leaving footprints on the stock charts. What about people without inside information, the so-called retail investors?

Anyone can drive by BOSS and see vacant parking lots. If people inside the store are pushing around empty carts with no one waiting in line at the cashier, then that can't be good for business.

That scenario happens with apparel retailers all the time. Last year's fad has faded, and the chain is left with too many lemon-yellow polka dot sweaters. In summer!

Facebook is a good example of the public's excitement (fear and greed) for a stock. Facebook is an Internet company that went public in mid-2012 (**Figure 1.1**). It seemed as if the entire world was in love with the company. Two days before the initial public offering (IPO), the company said it would increase the number of shares offered by 25% due to demand.

One analyst said the stock could reach as high as \$60 on the first day.

The underwriters priced the IPO at \$38, and the stock opened at just over \$42. It reached a high of 45 but closed just pennies above the offering price.

Then look what happened. The stock didn't hit 60; rather, it went the other way. It plummeted like a climber slipping off the Balcony on Mount





**FIGURE 1.1** Facebook has an initial offering price of \$38, shown at the horizontal line on the daily scale.

Everest, bouncing down until it reached base camp at 17.55 in early September, less than half the offering price.

Could retail investors have predicted such a move by looking at the charts of other IPOs? LinkedIn Corporation's stock opened at 83 but within six months, the stock hit a low of 60.14.

Of course, Facebook could have been the exception. Google, for example, opened at 100, and six months later, it was trading at almost 200.

These are just examples of the footprints left by the smart and dumb money. Our job as investors and traders is to recognize those footprints, decide which are valuable, and profit from them.

- Use prior price action to help determine future price movement.

## Advantages of Chart Patterns

What advantages do chart patterns offer when trading a stock? The first two that come to mind are that chart patterns give buy and sell signals.

1. Chart patterns issue clear buy signals.
2. Chart patterns issue clear sell signals.

When price closes above the trendline boundary of a chart pattern, that's a buy signal. A trading signal can also occur when price closes above the top or below the bottom of a chart pattern.

For example, Figure 1.1 shows a double bottom at AB. When price closes above the high between the two bottoms (C), it confirms the pattern as a valid one and signals a buy.

The sell side is similar. Sell signals occur when price closes outside a trendline boundary or below the bottom of a chart pattern.

There's no guessing about where the signal might be. The rules are known.

A third advantage is that signals are timely. If you have day-traded a stock using a moving average, you may know about this. Imagine a stock gap significantly higher at the day's open (opening gaps are common).

A 20-period moving average, for example, needs 20 samples to fill the pipeline and give a result. If you're on the one-minute scale, it will be 20 minutes before you see a simple moving average not influenced by the gap.

If you use two days of price data, then the moving average will be influenced by the gap up. One trader I know didn't recognize these effects and lost money because of it.

Indicators lag price. Using our simple moving average as an example, what happened at the gap up to 20 minutes ago influences the current value of the moving average.

Chart patterns don't suffer this type of delay.

- Chart patterns do not lag price.

One of the things many traders find useful is that chart patterns give an estimate of where price might go (called the *measure rule*, which is based on the height of the pattern). Often the estimate serves as a minimum price move, not a maximum.

- The height of the chart patterns helps set a price target.

## Disadvantages of Chart Patterns

Chart patterns have their flaws, too. You have to find the darn things! If you don't see a chart pattern until *after* the breakout, you may have sacrificed some profit when price zipped away from you. How many times have you pointed to a chart and said, "I should have bought right there."

- You have to find chart patterns to use them.
- If you are late finding a chart pattern, its usefulness declines.

You have to be patient with chart patterns. Yes, you can buy a stock at any time and get lucky when the stock cooperates and moves higher, breaking out upward from a chart pattern. But the stock could drop, too. Waiting for the breakout is often the smartest option, but it requires patience. Patience is an ingredient of many successful traders and investors. Do you have what it takes?

- Patience is required to wait for a buy signal.

A person I know puts the gas pedal to the floor whenever the stop light turns green. It's a metaphor for his impatience. He keeps asking if anyone can make money in the markets. Of course, anyone can, but he doesn't have the temperament for trading stocks. Do you?

Another drawback to chart patterns is that stop placement can be tricky. How so? Often price will breakout upward and then return (throwback) to the pattern. The breakout is still valid providing the stock doesn't close below the bottom of the pattern. If you sell when that happens, then you could suffer a substantial loss. That problem is easily rectified by using a closer stop, of course. Correct stop placement is an art that people must master for any trading technique. It's not specific to chart patterns.

- As with all trading techniques, stop placement can be tricky.

Imagine an unusually tall chart pattern, one that extends from the bottom of the screen to nearly the top. By the time you receive a buy signal, a substantial rise may already have occurred. That means you could be closer to the end of the uptrend than the beginning, limiting the upside potential. That's a problem easily fixed by looking for another pattern.

- Tall chart patterns may mean you are closer to the end of the trend than the beginning.

Finally, like other indicators in the stock market, chart patterns can fail. They issue a buy signal, but then price reverses and shoots off in the opposite direction.

- Chart patterns can fail.

## What Does It Mean?

You may have noticed that the number of disadvantages outnumber the advantages. Don't let that worry you. The advantages say that you can make money

trading chart patterns or use them to improve your trading with other methods. The disadvantages say that trading chart patterns isn't easy. In fact, it can be downright hard to make money consistently. But you can say that about any method.

You can't become a skilled brain surgeon overnight. Nor can you become an expert at trading chart patterns quickly. Both take experience and a dedication to the craft.

In the coming pages, we'll learn how to find chart patterns, what they mean, and how to profit from them.

- Don't expect to become rich overnight in the markets.

## What We Learned

Here is a list of the major lessons discussed in this chapter.

- Chart patterns are recurring formations that appear on price charts. See "What Are Chart Patterns?"
- Use prior price action to help determine future price movement. See "Enter the Retail Investor."
- Chart patterns issue clear buy signals. See "Advantages of Chart Patterns."
- Chart patterns issue clear sell signals. See "Advantages of Chart Patterns."
- Chart patterns do not lag price. See "Advantages of Chart Patterns."
- The height of the chart patterns helps set a price target. See "Advantages of Chart Patterns."
- You have to find chart patterns to use them. See "Disadvantages of Chart Patterns."
- If you are late finding a chart pattern, its usefulness declines. See "Disadvantages of Chart Patterns."
- Patience is required to wait for a buy signal. See "Disadvantages of Chart Patterns."
- As with all trading techniques, stop placement can be tricky. See "Disadvantages of Chart Patterns."
- Tall chart patterns may mean you are closer to the end of the trend than the beginning. See "Disadvantages of Chart Patterns."
- Chart patterns can fail. See "Disadvantages of Chart Patterns."
- Don't expect to become rich overnight in the markets. See "What Does It Mean?"

# 2

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## Chapter

# Identifying Chart Patterns

**L**earning to identify chart patterns is like learning how to recognize a ball. When someone hands you a ball, your mind forms rules to recognize it when you see it again. Even though the size, color, and texture may change, you can still recognize it as a ball. Then you'll discover what to do when your brother pelts you with a snowball.

In this book, we are going to use a similar approach by showing many examples of chart patterns. With practice, you'll learn to identify them, learn how to trade them, and learn to dodge the dangerous ones.

## The Blank Chart

Let's begin with a chart with nothing highlighted, shown in **Figure 2.1**.

This chart uses candlesticks to display price. Although I prefer candle charts, many of the ones in this book are bar charts. I use bar charts so I can pack more information onto the small real estate afforded by this book.

When I look at this chart, my mind draws chart patterns by connecting peaks to peaks and valleys to valleys using curves and straight lines.

What can you tell from this chart?



**FIGURE 2.1** Even a blank chart shows valuable information.



**trendline**

when price trends, a line connecting them is called a trendline.

Notice that price trends upward starting in August. If you were to draw a line under the major valleys, it would follow a straight path (or nearly so). That line would be called a *trendline* since it follows a line of trend.

Imagine that you own this stock. What worries you most about this chart? Answer: that the uptrend will end. If the trend ends, how far can you expect price to drop? Chart patterns can help answer that question.

Look at the price scale. In less than a year, the stock more than doubled. If you had bought the stock near the low in August and sold near the high in March, you would have profited handsomely.

**Figure 2.2** shows the same chart as the last one, but I added a few lines. This chart looks like a staircase with horizontal treads following an upsloping trend. In a few cases, price ducks below the diagonal trendline as if looking underneath the stairs, but not for long. Price rests on the diagonal line or climbs above it.



**FIGURE 2.2** This uptrend follows a stair step movement higher.

The price movement, in most cases, does not come that close to the horizontal lines. Only the period from September to November has the potential to make good contact with the line directly above it. That's important because it forms a chart pattern I'll discuss in a moment.

- The blank chart shows price movement, uptrends, downtrends, and areas where price moves horizontally.

## Connecting Peaks

The first step to finding chart patterns is to let your eyes glide over the chart and spot multiple peaks at or near the same price.

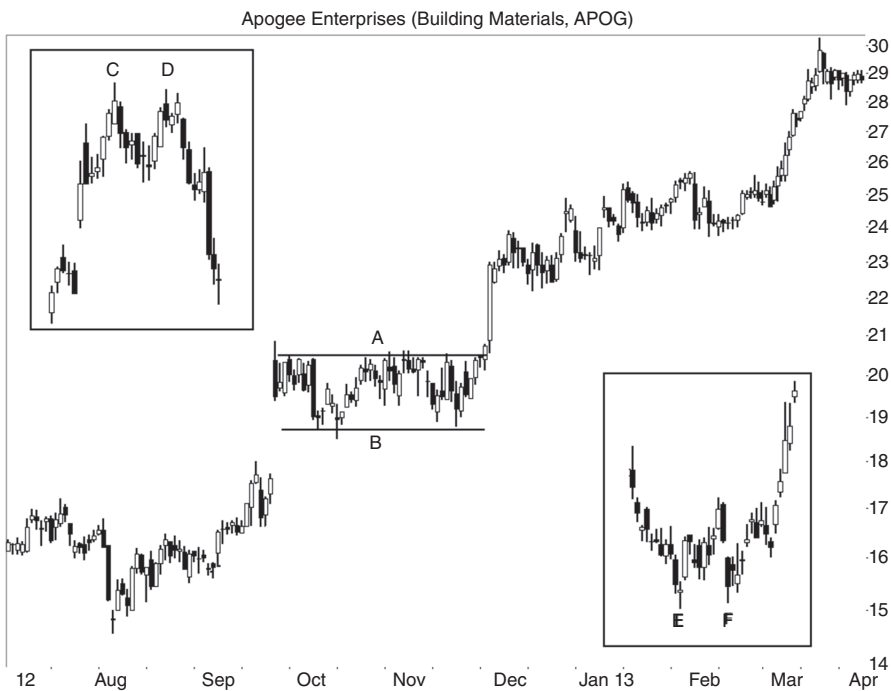
The twin peaks in the upper left inset of **Figure 2.3** highlight a chart pattern called a double top. Notice how tops C and D peak near the same price. If you find three peaks near the same price, it could be a triple top. We'll go into detail on identifying these patterns later in the book. For now, though, just let

your eyes search the chart for peaks at (or near) the same price. If you find some, it could be a chart pattern.

- Begin constructing chart patterns by visually finding peaks that share similar prices.
- Two peaks that top out near the same price could form a double top.

Imagine connecting those peaks with horizontal or near-horizontal lines. For example, in the middle of Figure 2.3, I drew horizontal line A by connecting the peaks. That line is also a trendline like the diagonal one in Figure 2.2 except line A is horizontal. Trendlines can slope in any direction, and they can be curved, too.

Notice how price touches the top line several times and does not *close* above it until after the end of the line when price seems to catch a thermal and soars. A close above the top trendline is called a *chart pattern breakout* since price breaks out of the chart pattern.



**FIGURE 2.3** Trendlines AB form a rectangle top chart pattern.



## Connecting Valleys

Let your eyes search for valleys that bottom near the same price.

The lower right inset of Figure 2.3 is an example of a pattern called a double bottom. The two valleys at E and F bottom near the same price.

It's easy to find peaks that align and valleys that align. All it takes is practice.

- Search for chart patterns by looking for valleys that bottom near the same price.

I drew a horizontal trendline along the valleys at B. Price rests on it. Price does not *close* below the line even though one of the lows does poke through.

Line B is an example of multiple valleys aligning to form a line of trend. Again, use your eyes to find two valleys near the same price and then look for other valleys that may also be near the same price. Imagine connecting those valleys with lines to form shapes—chart patterns.

- If multiple peaks stop near the same price, look at the valleys between the peaks for a better clue to their type. They could be triple tops, an ascending triangle, or a broadening pattern.
- Multiple valleys at a similar price could be a triple bottom, descending triangle, or a broadening pattern.

## Patterns with Curves

After training your eyes to find peaks that form straight lines and valleys that form straight lines, let's throw a curve ball. Sometimes patterns form with curved lines. **Figure 2.4** shows three examples.

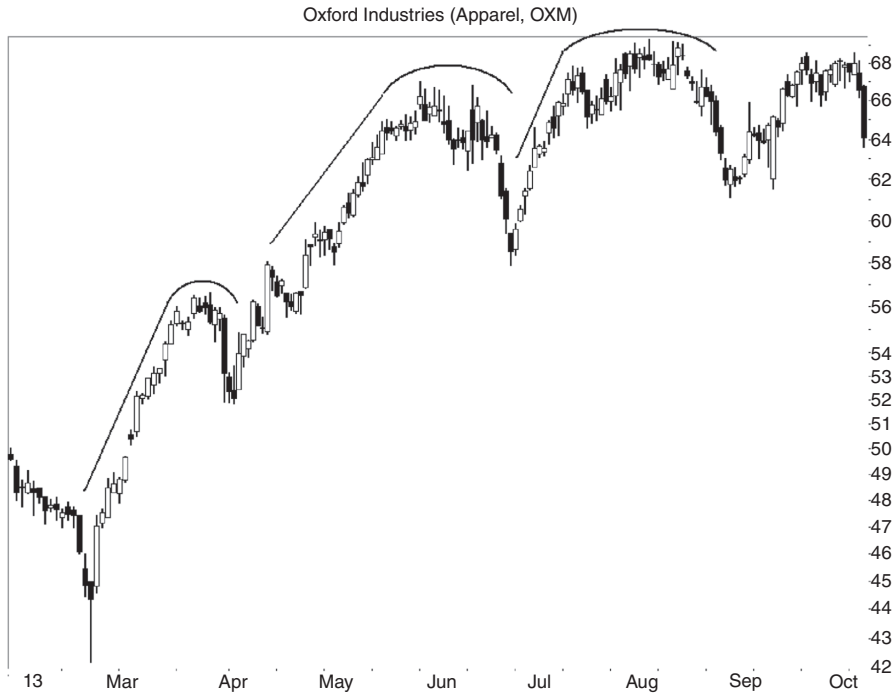
These patterns are called inverted and ascending scallops because of their upside-down bowl shape. They remind me of kitchen ladles (without the handle hook) or inverted and backward Js. Price trends in a straight line upward until rounding over at the top and then retracing a portion of the prior gain.

One interesting aspect of inverted and ascending scallops is that as they approach a trend change (the end of a trend), they tend to get shorter. That doesn't always happen. I've seen some where the opposite occurs: they get taller.



### chart pattern breakout

when price closes outside of a trendline (chart pattern) boundary, it is said to break out.



**FIGURE 2.4** These chart patterns use curved lines.

There are four varieties of scallops: inverted and noninverted, ascending and descending. They are plentiful, but not well known. Yet they perform well. Sometimes the rounding turn appears better on the inside of the chart pattern rather than the outside. Either works, so check for peaks and valleys that form turns.

Perhaps you have heard of a cup with handle pattern. How about a rounding top or bottom? Those patterns have rounded turns, too.

Let your eyes drift over the price chart and trace imaginary lines along the peaks or valleys to form curves. They can be cup-shaped or inverted cups. The cups can be tilted on their sides so that if they contained milk, it might fry your keyboard. That happened to me once with a laptop computer and a glass of wine. Let's just say I use a desktop computer now.

- Look for curves on the price chart and connect those curves with imaginary lines to form chart patterns.
- Curves appear in scallops, cups with handles, and rounding tops and bottoms.

## Patterns with Diagonals

Peaks, valleys, and curves. What's left? Diagonals. Many chart patterns use diagonal lines, such as triangles (ascending, descending, symmetrical) and ones from the broadening family (broadening tops, bottoms, wedges, and the right-angled ascending and descending brothers), to name a few.

- Several types of chart patterns use diagonal lines. Look for trendlines that slope upward or downward when searching for chart patterns.

After using imaginary lines to connect peaks, look at the valleys and see if a diagonal line would touch the bottoms of several valleys. The reverse is true, also. If you spot valleys that align, perhaps the peaks also align using a diagonal.

If you spot a curve, look for a diagonal extension off that curve like the scallops in Figure 2.4.

Yes, the three tools of straight lines, curves, and diagonals may sound like finding chart patterns is easy. It is. All it takes is practice to train your eyes to spot them in the price landscape.

Let's delve into patterns that use diagonals.

**Figure 2.5** shows a combination of lines—straight and diagonal ones—that bound patterns. Pattern A is called a symmetrical triangle. It uses two diagonal trendlines to bound price movement. The two lines converge and join at the triangle's apex.

Notice that price nears or touches the top trendline multiple times. Along the bottom, price finds support at the lower trendline multiple times, too.

The breakout from this pattern occurs at B when price closes below the bottom trendline. Only a *close* below the trendline counts as a breakout. The spike at C, for example, should be ignored even though it does suggest price is going down.

Pattern D is an ascending triangle although it's not well-formed. The top trendline is horizontal, and price touches it several times. The bottom trendline is where the problem occurs. Price touches the trendline multiple times, but only at the start and near the breakout at E. Yes, price is busy moving up toward the top trendline in the middle of the pattern, but I'd still like to see one bottom touch in the middle of that lower trendline.

Notice that both chart patterns break out downward and drop just a bit before shooting out the other side. "Way cool!" you could say. It's as if the first pattern is the template for the second. Unfortunately, chart patterns usually don't work that way. But it pays to search for chart patterns in a historical price series for hints on how a new pattern might unfold.

- Use prior price action to help determine future behavior.



**FIGURE 2.5** Chart patterns also form using diagonals.

## That's a Wrap

Of all the chart patterns, those with diagonal or curved trendlines (Figures 2.4 and 2.5) occur most often. It's rare for price to move horizontally as in a rectangle (see AB in Figure 2.3). However, you will frequently see two peaks (double top) or two valleys (double bottom) form near the same price. Those peaks and valleys show where resistance and support are, respectively.

Practice searching for chart patterns to train your eyes to see them. Begin looking for peaks that form near the same price. Those could be double tops and triple tops.

If you find multiple peaks that line up, look between those peaks to the valleys below. They may also align along a line of trend (horizontal, but more often diagonal). Those could be from the triangle family: ascending, descending, or symmetrical.

Other patterns may use curves, so look for peaks to round over and valleys to round up (or the reverse, of course). Curved shapes that form patterns are harder to spot than straight lines.

If you see peaks or valleys that align along a diagonal, then that forms a simple chart pattern (a trendline). Look at the side opposite the diagonal to see

if it's a more complex pattern like one of the triangles or one from the broadening family where price oozes out like a megaphone.

Near the back of the book is a visual index of chart patterns. It shows the ideal appearance, so you might want to look at them now to familiarize yourself with their shape. In the coming chapters, we'll look at many of those patterns and tell you exactly what to look for.

The guidelines that we'll discuss have important rules, such as the measure rule and learning what confirmation means.

## What We Learned

Here is a list of the major lessons discussed in this chapter.

- The blank chart shows price movement, uptrends, downtrends, and areas where price moves horizontally. See “The Blank Chart.”
- Begin constructing chart patterns by visually finding peaks that share similar prices. See “Connecting Peaks.”
- Two peaks that top out near the same price could form a double top. See “Connecting Peaks.”
- Search for chart patterns by looking for valleys that bottom near the same price. See “Connecting Valleys.”
- If multiple peaks stop near the same price, look at the valleys between the peaks for a better clue to their type. They could be triple tops, an ascending triangle, or broadening pattern. See “Connecting Valleys.”
- Multiple valleys at a similar price could be a triple bottom, descending triangle, or a broadening pattern. See “Connecting Valleys.”
- Look for curves on the price chart and connect those curves with imaginary lines to form chart patterns. See “Patterns with Curves.”
- Curves appear in scallops, cups with handles, and rounding tops and bottoms. See “Patterns with Curves.”
- Several types of chart patterns use diagonal lines. Look for trendlines that slope upward or downward when searching for chart patterns. See “Patterns with Diagonals.”
- Use prior price action to help determine future behavior. See “Patterns with Diagonals.”
- Diagonal trends occur in many broadening patterns, diamonds, and wedges. See “Patterns with Diagonals.”
- Review the Visual Index of Chart Patterns at the back of the book for a visual reference .

