Timeless Techniques for Trading Stocks and Futures

# CANDLESTICK CHARTING EXPLAINED

3rd Edition

GREGORY L. MORRIS

with Ryan Litchfield

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## Timeless Techniques for Trading Stocks and Futures

Third Edition

Gregory L. Morris
with Ryan Litchfield

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*To Dusti, Grant, Derek, and Kane*

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# Contents

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# Foreword from the Second Edition

I am a collector of first editions of books. My specialties include astronomy texts written before 1900, such as Percival Lowell's classic *Mars,* the first published speculations about the possibility of life on the red planet (which inspired Jules Verne to write *The War of the Worlds*), and a strange little tome from 1852 that claims astronomer William Hershel spotted sheep on the Moon with his telescope.

My collection also includes about 200 business books written by authors I have interviewed through the years. My inscribed copy of Ivan Boesky's *Merger Mania,* for example was appraised a few years ago at $200.

But my sentimental favorite is a beat-up old chart book of the Dow Jones Industrials and Transportation Averages going back to December 18, 1896, the day the modern Dow Jones averages were born. (Trivia question: Where did the Dow Industrials close after its very first day of trading? Answer: 38.59). Back then, the Industrials only had 12 components, and the Transports, with 20 issues, were known as the Rails.

A 90-year-old FNN viewer from Virginia offered it to me in the fall of 1985.

"I have been interested in, but not too active in, the market since the early '20's" he wrote, "and lived through the '29 'break' and the great depression which was a 'tempering' influence against excessive enthusiasm."

"At age 90 my activities are confined to 'growth' stocks and safe investments. I am no longer interested in 'speculation.' " So he wondered if I would be interested in his chart book.

Indeed, I was. I gladly accepted in exchange for a signed copy of one of Joe Granville's books.

The book was published in 1931 by Robert Rhea, the famed disciple of Charles Dow and of the oldest form of technical analysis, the Dow Theory. It covers the years 1896–1948, with each page devoted to one year's trading of both averages.

It is one big, faded green rectangle, measuring 11 inches high and 18 inches across. Its heavy cardboard covers are held together by a couple of rusty screws.

I browse through it once in awhile, marveling at its simplicity. Each day's closing value is designated by a single horizontal hash mark meticulously notched on the graph paper.

Nothing fancy. No intraday highs and lows, no trendlines, no points or figures, just a simple daily record of the debits and credits of civilization.

There is the market panic in December of 1899, when the Industrials plunged from 76 to 58 in just 13 trading days.

There is the period from July to December of 1914, when, incredibly, the market was closed on account of World War I. Eerily, half the page devoted to that year is blank.

And, of course, there is 1929, when the Industrial peaked on September 3 at 381.17 and hit a bottom, three pages later, in July of 1932 at 41.22.

The book means a lot to me. Between its covers there is a bit of history, some mathematics, a dose of economics, and a dash of psychology. It has taught me much about a discipline that I once considered voodoo.

Good journalists are supposed to maintain an open mind about the stories they cover. Political reporters, for example, should be neither Republican nor Democrat. And successful financial reporters should avoid being either bullish or bearish. And they should also be familiar with both fundamental and technical analysis.

I remember the first time I interviewed a technical market analyst in the fall of 1981, when I was still cutting my teeth on business news. This analyst spoke of 34-day and 54-week market cycles and head-and-shoulder bottoms and wedge formations. I thought it was so much mumbo-jumbo until the summer of 1982 when the bull market was launched, and the fundamental analysts were still bemoaning the depths of the recession that gripped the economy at the time. That was when I realized the technicians may have something there.

He doesn't know it, but Greg Morris taught me a lot about technical analysis. Or, more accurately, his N-Squared software did. For a couple of years during the mid-1980s, I hand-entered the daily NYSE advance/decline readings and the closing figures of a few market indices into my computer. I used N-Squared to build charts and draw trendlines. (I hadn't yet learned about modems and downloading from databanks.)

The slow, painstaking process gave me a hands-on, almost organic, feel for the markets. And watching various repetitive chart patterns unfold on the computer screen was a great lesson about supply and demand and about market psychology.

I think I understand how technical analysis works. It's the why that still puzzles me. I understand the supply and demand implications of support and resistance levels, for example, and I appreciate the theories behind pennant formations and rising bottoms.

But I still marvel at what ultimately makes technical analysis work: that intangible something that causes technicians to anthropomorphize the markets without even realizing it. The market is tired, they say. Or the market is trying to tell us this or that. Or the market always knows the news before the newspaper do.

That something, in my mind, is simply the human side of the market, which I suggest American technicians tend to ignore. Technical analysis is, after all, as much art as it is science. But too many analysts have a mathematical blind spot, and I blame that on computers. Yes, charts represent numerical relationships, but they also depict human perceptions and behavior.

Enter Sakata's Candlesticks, which combine the highly quantitative ratiocination of American technical analysis with the intuitive elegance of Japanese philosophy. Greg Morris has more that ably turned his attention to this fascinating charting style with this book.

It occurs to me that Japanese Candlesticks are the perfect form of technical analysis for the 1990s. I happen to agree with authors John Naisbett and Patricia Aburdene. It won't necessarily be an overtly religious period, mind you, but rather one subtle, intuitive power we may all develop that allows us to sense things before they actually happen. It will be a period that embraces a kind of hybrid Eastern philosophy and Western practicality without all the New Age hocus-pocus.

Just right for Candlestick analysis. The system is precise and exacting, but it charms with its haiku-like names for charts patterns: "paper umbrella," or "spinning tops," for example.

But I'll let Greg Morris tell the story from here. I just hope my 90-year-old friend is still around to read it. I think he would like it.

BILL GRIFFETH, Anchor<br>
*Strictly Business,* CNBC<br>
Park Ridge, NJ

# Foreword for the Third Edition

I got into the investment business when I was 21 and my timing was impeccable. I opened my first office in June 1982 only two months before the stock market embarked on an 18-year secular bull market. (I thought I was the catalyst for the market's improvement!) I was young and knew everything—or at least I thought so. It didn't take long for me to realize that not only did I *not* know everything; I actually knew very little. The investment world is a big place and the confounding truth is there is no single "right" way to do it. There are many good ideas and strategies but none are perfect.

I considered myself quite mature at the ripe age of 21, but thankfully I was alone in that assessment. There were very few people standing in line to get investment advice from a kid, which was a good thing because as a result, I had little opportunity to do any damage.

One benefit of youth is an openness to ideas, and by setting out on my own I was fortunate to have escaped the traditional training of the big brokerage firms. No one brainwashed me into believing their way was the only way, so I was able to listen and learn without bringing a lot of preconceived notions to the table. To use a good Southern phrase, "I wasn't set in my ways" yet.

As we were in the midst of what would become the most unprecedented bull market in history, my first experience with a market hiccup was the 1987 crash. While the short-term effects of Black

Monday were emotional and nerve-wracking, it wasn't long before that cyclical bear market became additional ammunition for the fundamental, buy-and-hold crowd to espouse how "right" they were: Every correction was simply a buying opportunity, bear markets don't last long, and losses are quickly recovered. I was drinking the Kool-Aid.

The cyclical bear market in 1990 was similar to the 1987 bear—it didn't last very long and the recovery time was less than a year—but it *was* different for me because by that time I had real clients with real money! I was being asked real questions about ways to manage risk in a portfolio and I didn't have any answers. That's when technical market analysis finally popped up on my radar screen.

In 1991, Don Beasley and I formed what would become PMFM, Inc., a registered investment advisor managing money using technical market analysis. Our goal was to deliver reasonable returns without the roller coaster ride and risks that come with buy-and-hold.

Technical analysis is still not "mainstream" because the buy-and-hold approach is so much easier for brokers and financial advisors, but in the wake of the recent bear market, investors are finally taking notice. In 2000–2002 a ferocious bear kicked down the door and proceeded to destroy all those market "truths" that had been ingrained since 1982. This bear market wasn't brief; twenty percent drops were not good buying opportunities; and the overall damage was severe. Now, more than five years after the slide began, we are still a long way from breaking even on most indices. Unfortunately it took the worst bear market since the Great Depression to bring technical market analysis the attention it deserves, but I am thankful that our approach allowed us to preserve our clients' money and actually post a positive return over that dreadful three-year period.

Over the past decade, I have come to appreciate how vast the study of technical analysis really is. There are so many viable models and measures—some basic, some complex—but ultimately they are just tools of the trade for a good technician. We all find comfort in familiarity and maybe that is why Japanese Candlestick Charting is often passed over and left in the toolbox. At first glance is seems obscure, mysterious, and almost impenetrable—until now!

Greg Morris, a gifted market technician and wonderful writer, has brought Japanese Candlestick Charting to life in a way that only he can. We are delighted to have Greg on our team at PMFM, Inc. The information provided in this book is direct, easy to understand, and most importantly, easy to apply. It doesn't matter if you are an investment professional looking for ways to serve your clients better, or an individual searching for knowledge to manage your own assets, *Candlestick Charting Explained* is an important how-to manual that will make you a better investor/trader.

Tim Chapman
PMFM.com

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# Preface from the Second Edition

Japanese candlestick charting and analysis is definitely a viable and effective tool for stock and commodity market timing and analysis. That is a bold statement, especially when you consider the universe of analysis techniques that are being promoted, offered, sold, used, abused, and touted. Other than Nison's work, the only problem has been the lack of detailed information on how to use and identify them. Not only will this book solve this problem, but it will also provoke an intellectual curiosity in candlesticks that will not easily disappear.

Japanese candlesticks provide visual insight into current market psychology. There is no ancient mystery behind Japanese candlesticks, as some promoters would have you believe. They are, however, a powerful method for analyzing and timing the stock and futures markets. That they have been used for hundreds of years only supports that fact. When candlesticks are combined with other technical indicators, market timing and trading results can be enhanced considerably.

It is almost regretful that this sound analysis technique was introduced to the West using the word "candlesticks" instead of some more appealing or appropriate terminology, such as Sakata's Methods or Sakata's Five Methods. If candlesticks' Western debut had focused on the uncovering of an ancient Japanese analysis technique called Sakata's Methods, I believe their acceptance would have been quicker and more widespread. None of this, however, changes the contribution that candlesticks make to technical analysis; only fewer misleading claims would have been made.

In January 1992, I completed a week of study in Japan with Mr. Takehiro Hikita, an independent and active futures trader. While staying in his home, we thoroughly discussed the entire realm of Japanese culture related to candlestick analysis. His extensive knowledge and dedication to the subject made my learning experience not only enjoyable, but quite thorough. His insistence that I try to understand the psychology at the same time was instrumental in learning many of the pattern concepts. I hope that I have transposed that priceless information into this book.

This is a book that not only covers the basics, but offers more detail into exactly how to identify and use the patterns. A comprehensive analysis and recognition methodology will be presented so that you will have no doubt in your mind when you see a candlestick pattern. In addition to a thorough coverage of the candlestick patterns, the philosophy of their use will be discussed so that you will have a complete understanding of the Japanese candle pattern analysis and its usefulness to market timing and strategies. Candle Patterns need to be defined within parameters that people can understand and use in their everyday analysis. This can still involve flexibility as long as the limits of that flexibility are defined, or at least explained.

An attempt to take the subjectivity out of Japanese candlesticks analysis will be primary thrust of this book. Most sources that deal with candlesticks admit that patterns should be taken into the context of the market. This is true, but is often an excuse to avoid the complicated methodology of pattern recognition.

Chapters on statistical testing and evaluation will reveal, totally, all assumptions used and all details of the testing results. Rigorous testing has been done on stocks, futures, and indices. Some of the results were surprising and some were predictable. All results are shown for your use and perusal.

There is nothing more tiring, useless, and inefficient than reading pages of detailed analysis on chart patterns about how the market was or what you should have done. The seemingly endless verbiage about how you would have done if you had only recognized this or that when this or that occurred is totally worthless. Charting examples will be shown in this book only as learning examples of the candle patterns being discussed. It definitely helps to see the actual candle patterns using real data.

I could not have allowed myself even to start a project as involved as this if I had even the slightest doubt as to the viability and credibility of using Japanese candlesticks as an additional tool for market analysis and timing. Over the last 15 years, I have read almost every book on technical analysis, used every type of indicator, followed numerous analysts, and developed technical and economical analysis software in association with N-Squared Computing. Believe me, if candlesticks were just a passing fancy, this book would not have been considered—certainly not by me.

I felt that a straightforward approach in writing the book would be the most accepted, and certainly the most believable. When I buy a book to learn about new techniques, a textbook-like approach is appreciated. Hence, this style has played a vital part in the structure and organization of this book.

This book will not only introduce and explain all of the inner workings of Japanese candlesticks, but will also serve as a reference manual for later use. Each candle pattern has been defined and explained in a standard format so that quick and easy referral is possible. I will introduce a new method of analysis called "candlestick filtering," which, based upon my research, is essential for better recognition. You will see it gain in popularity because it can provide such a sound basis for future analysis and research.

Japanese candlestick analysis used with other technical/market indicators will improve your performance and understanding of the markets. Even if you use candlesticks solely as a method of displaying data, you will find them indispensable. Candlestick charting, candle pattern analysis, and candlestick filtering will give you an edge, a tool if you will, that will enhance your understanding of the markets and trading performance. Learn candlestick charting and analysis, use it, and enjoy its rewards.

Greg Morris
Dallas, Texas
1992

# Preface for the Third Edition

The preface for the second edition still says most of the facts that need to be here, with only a few changes and additions given below.

A number of new candle patterns have been developed since the first edition came out in 1992. Many of these were created to fill the holes in the original Japanese versions of the patterns. A large number of original Japanese patterns did not have a complement or counterpart; there was either a bullish version or a bearish version, but not both.

Those holes have been filled, along with a handful of new patterns. When you study these patterns for all these years, one easily can start to see how new things can develop. Steve North of North Systems was the originator of many of these complementary and new patterns. If you see these patterns in other books or articles on candlesticks, be sure to ask the author where he/she obtained the information.

So after 14 years, what has changed? Computers are readily available; certainly computing power growth has exceeded even Moore's Law. Almost all data services offer stock data that has the open price available. In 1992 that was definitely not the case, as I addressed it in Chapter 6. The internet has offered charting services such as StockCharts.com, that make the term software almost obsolete; all you need is a browser. Intraday data is certainly more readily available. I still have a problem in using candle pattern analysis on anything other than daily data. The Japanese believed strongly that the time between the close of one day and the open of the next day was important to investor psychology. The time between the end (close) of a 10-minute candlestick and the beginning (open) of the next one, is just simply the next tick. Not a lot of time to develop a psychological outlook on the market, is it?

So what has not changed? I still witness folks using candle pattern analysis that seem to forget its one primary and most basic premise; you must first identify the trend of the market before you can even begin to find candle patterns. How can you have a bullish reversal candle pattern if you not in a downtrend? You can't. Remember, these short-term views of investor psychology are based upon the trend of the market.

I still hear and witness analysts making much more out of candle pattern analysis than they should. It is not magical; it is not the key to instant profit; it is just simply another good short-term tool for market analysis and trading. Candle pattern analysis should always be supplemented with other analysis techniques.

In this edition, I added considerably more information on the measures of success for candle patterns relative to many other technical indicators. I also enhanced the statistics that support the candle pattern filtering concept I introduced in the first edition.

I have also shortened my view on the viability of using candle patterns. In the first edition I mentioned that they were fairly reliable up to about nine market days. Today, I strongly believe that anything over five days is coincidental and random. If a candle pattern calls the beginning of the biggest up move in history, it is not the candle pattern that causes it; the candle pattern only helps identify its beginning.

Finally, Ryan Litchfield contributed a much-needed section on candlesticks for traders. If you are a trader you will love Chapter 10. If you are not a trader you will love Chapter 10.

GREGORY L. MORRIS
Big Canoe, GA
2006

# Acknowledgments

There are people without whom this book could not have been possible. Where do I start? Who do I mention first? This, quite possibly, is more difficult than the book itself.

One must never forget one's roots. There is no doubt in my mind that my parents, Dwight and Mary Morris, are mostly responsible for all the good that I have ever accomplished. Any of the bad surely had to come from being a jet fighter pilot in the U.S. Navy for six years.

I am blessed with a wonderful wife, Laura. Her support during this effort was unwavering and fully appreciated.

Norman North (Mr. N-Squared Computing) has gone from a business associate to a valued friend. His insight and opinions are always sought and usually relied upon. The bottom line is this: without Norm, this book would not have been written. Steve North (Norm's son) was invaluable with all the new material that was used in this edition.

I am forever grateful to Takehiro Hikita for his gracious offer to visit Japan, stay in his home, and help with the many Japanese interpretations. My trip to Japan in January 1992 to study Japanese candlestick analysis was invaluable. His knowledge of candle pattern analysis is filtered throughout this book.

Ron Salter, of Salter Asset Management, has always offered an unusual but insightful opinion on the economy and the markets, one that usually seems to be more right than wrong. I am grateful for his permission to quote some of his comments from his client letter.

Steve Nison must be given full credit and acknowledgment for pioneering "candlesticks" into Western analysis. His book *Japanese Candlestick Charting Techniques,* published by New York Institute of Finance/Simon & Schuster is a classic and provides the reader with a rich history of candlesticks and candlestick analysis. Nison coined many of the English names for the various patterns used in the West today. Many of the concepts used in the West today originated from Nison's work and have been widely accepted as commonplace among candlestick enthusiasts. This book does not try to change that.

The first book translated into English about Japanese candlesticks was *The Japanese Chart of Charts,* by Seike Shimizu. This book provided as immense wealth of information about all of the popular candle patterns along with their many interpretations. It was translated by Greg Nicholson. Another valuable source of information on candlesticks was published by Nippon Technical Analysis Association, called *Analysis of Stock Price* in Japan, 1988.

My thanks also go to Chip Anderson and all the folks at StockCharts.com for their assistance in creating most of the new charts in this edition. Special recognition goes to Kellie Erlandson for converting them into a usable format and never complaining when I wanted to change something. Also thanks to Edgar Isidro for typing the original book into Microsoft Word. I think I must have been using a DOS-based word processor, or something long since gone when I did the first edition in 1991.

Thanks to Jason Holcombe for reviewing all of my Japanese language books in search of any new patterns and providing a few of the translations for the new patterns.

Thanks to Raymond Fowkes for his expertise in generating the Microsoft Excel tables that were converted into the Pattern Detail Information Boxes in Chapters 3 and 4.

I need to give special mention of Ryan Litchfield, who made some significant contributions to this new edition. Ryan has a unique way of viewing markets and trading, and our collaboration on this edition has enhanced this book significantly. You are going to enjoy Chapter 10.

As is the accepted standard, and certainly in this case the fact, whatever factual errors and omissions are sadly, but most certainly, my own.

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# CANDLESTICK CHARTING EXPLAINED

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CHAPTER ONE

# Introduction

Japanese candlestick analysis is a valid form of technical analysis and should be treated as such. Promoters of instant wealth will always misdirect and abuse their rights, but in the end, they are not around long enough to cause any substantial damage. One should always look into any new technique with a healthy amount of skepticism. Hopefully, this book will keep that skepticism under control and unnecessary.

## TECHNICAL ANALYSIS

When considering technical analysis, one should remember that things are quite often not always what they seem. Many facts that we learn are not actually true; and what seems to be the obvious, sometimes is not. Many people believe water runs out of a bathtub faster as it gets to the end; it doesn't. Some people may drink like a fish, but fish don't drink. George Washington neither cut down a cherry tree, nor threw a silver dollar across the Potomac. Dogs don't sweat through their tongues, Audi automobiles never mysteriously accelerated, and the Battle of Bunker Hill was not fought at Bunker Hill (Breed's Hill).

A good detective will tell you that some of the least reliable information comes from eye witnesses. When people observe an event, it seems their background, education, and other influences color their perception of what occurred. A most important thing that detectives try to do at a crime scene is to prevent the observers from talking to each other, because most would be influenced but what others say they saw.

Another curious human failing becomes a factor when we observe facts. The human mind does not handle large numbers or macro ideas well. That thousands of people die each year from automobile accidents raises scarcely an eyebrow, but one airplane crash, killing only a few people, grabs the nation. We are only modestly concerned that tens of thousands of people are infected with AIDS, but we are touched deeply when presented with an innocent child that has been indirectly infected. If a situation is personalized, we can focus on it. We can become deluded by our emotions, and these emotions can affect our perceptions. When our portfolios are plunging, all of the fears that we can imagine are dragged out: recession, debt, war, budget, bank failures, etc. Something is needed to keep us from falling victim to everyday emotion and delusion; that something is technical analysis.

Almost all methods of technical analysis generate useful information, which, if used for nothing more than uncovering and organizing facts about market behavior, will increase the investor's understanding of the markets. The investor is made painfully aware that technical competence does not ensure competent trading. Speculators who lose money do so not only because of bad analysis, but because of their inability to transform their analysis into sound practice. Bridging the vital gap between analysis and action requires overcoming the threats of fear, greed, and hope. It means controlling impatience and the desire to stray away from a sound method to something new during times of temporary adversity. It means having the discipline to believe what you see and to follow the indications from sound methods, even though they contradict what everyone else is saying or what seems to be the correct course of action.

## JAPANESE CANDLESTICK ANALYSIS

As a new and exciting dimension of technical analysis, Japanese candlestick charting and candle pattern analysis will help people who wish to have another tool at their disposal; this tool will help sort and control the constant disruptions and continuous outside influences on sound stock and futures market analysis.

What does candlestick charting offer that typical Western high-low bar charts do not? As far as actual data displayed—nothing. However, when it comes to visual appeal and the ability to see data relationships easier, candlesticks are exceptional. A quick insight to the recent trading psychology is there before you. After a minimal amount of practice and familiarization, candlesticks will become part of your analysis arsenal. You may never return to a standard bar chart.

Japanese candlesticks offer a quick picture into the psychology of short-term trading, studying the effect, not the cause. This places candlesticks squarely in the category of technical analysis. One cannot ignore the fact that prices are influenced by investors' psychologically driven emotions of fear, greed, and hope. The overall psychology of the marketplace cannot be measured by statistics; some form of technical analysis must be used to analyze the changes in these psychological factors. Japanese candlesticks read the changes in the makeup of investors' interpretations of value. This is then reflected in price movement. More than just a method of pattern recognition, candlesticks show the interactions between buyers and sellers. Japanese candlestick charting provides insight into the financial markets that is not readily available with other charting methods. It works well with either stocks or commodities. Related analysis techniques, such as candlestick filtering and CandlePower (candle volume) charting, will add to your analysis and timing capabilities.

This book not only will serve as a complete guide to Japanese candlestick charting and candle pattern analysis, but will also provide conclusive evidence of the usefulness of candlestick patterns as an analysis tool. All methods of analysis and all assumptions will be opened and unobstructed. You will, after reading this book, either begin to use candlesticks to assist in your market analysis and timing or be confident enough in them to further your own research into candlestick analysis.

## JAPANESE CANDLESTICKS AND YOU

Once you become accustomed to using candlestick charts, you will find it disconcerting to be limited to a standard bar chart. Without candlesticks, you will feel that you are not seeing the complete picture—that something is missing. Besides providing the quick and easy pattern recognition, candlesticks have great visual appeal. The data relationships almost jump off the page (or computer screen), hardly the case with bar charts.

## CANDLESTICK CHARTS VERSUS BAR CHARTS

Throughout this book, the assumed time period will be a single day of trading. It should be understood that a bar or candle line can represent any trading period, not always just a day. However, daily analysis is probably the most common and will thus represent the period of trading for this book. Additionally, the mention of inventors, speculators, and traders will be used throughout with no attempt to classify or define them.

## Standard Bar Charts

The data required to produce a standard bar chart consists of the open high, low, and close prices for the time period under study. A bar chart consists of vertical lines representing the high to low range in prices for that day. The high price refers to the highest price that the issue traded during that day. Likewise, the low price refers to the lowest price traded that day.

For years, the only other price element used in bar charting was the close price. The close was represented on the high-low bar as a small tick mark extending from the bar out to the right. Recently, bar charting has incorporated the open price by another small tick on the left side of the high-low bar. This stands true for almost all stock charts and stock data vendors. Most futures and commodity charts have always used the open price because it was more readily available.

Most bar charts are displayed with a volume histogram at the bottom. Charting services also offer a number of popular indicators along with the bar chart. Technical analysis software vendors gave

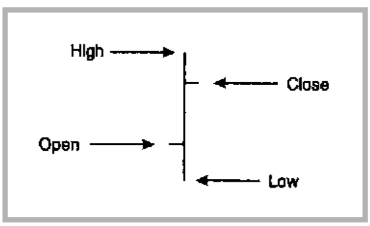


**Figure 1-1**

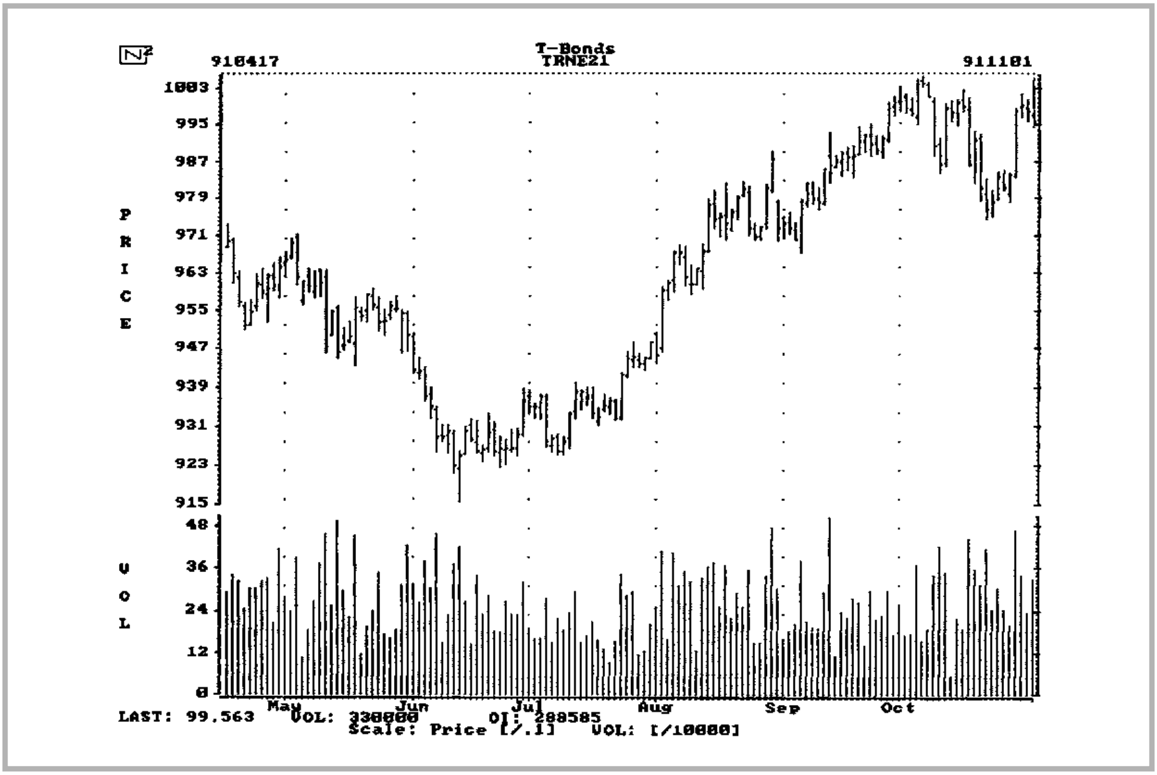


**Figure 1-2**

the user a great deal of flexibility in displaying the bar charts. The standard bar chart could be displayed with indicators, volume, open interest, and a large assortment of other technical tools appropriate for that software.

## Candlestick Charts

Japanese candlestick charts do not require anything new or different as far as data are concerned. Open, high, low, and close are all that is needed to do candlestick charting. When this was first written, many data vendors did not have open prices on stocks. This problem can be addressed by using the previous day's close for today's open price. This, however, presents a somewhat controversial situation and is thoroughly discussed in Chapter 6.

## THE BODY (*JITTAI*)

The box that makes up the difference between the open and close is called the real body of the candlestick. The height of the body is the range between the day's open price and the day's close price. When this body is black, it means that the closing price was lower than the opening price. When the closing price is higher than the opening, the body is white.

## THE SHADOWS (*KAGE*)

The candlestick line may have small thin lines above and/or below the body. These lines are called shadows and represent the high and low prices reached during the trading day. The upper shadow (*uwa-kage*) represents the high price and the lower shadow (*shitakage*) represents the lower price. Some Japanese traders refer to the upper

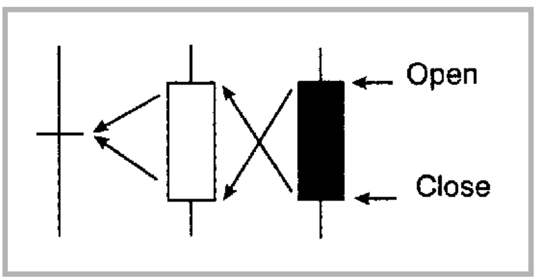


**Figure 1-3**

shadow as the hair and the lower shadow as the tail. It is these shadows that give the appearance of a candle and its wick(s).

When drawing candlestick charts by hand, the Japanese use red instead of white to represent the up days (close higher than open). With the use of a computer, this is not feasible because red would be printed as black on most printers and you could not tell the up days from the down days. This also applies to photocopying.

If you compare Figures 1-4 and 1-5, you can see that the Japanese candlestick chart really does not display anything different from the standard bar chart. However, once you become accustomed to seeing

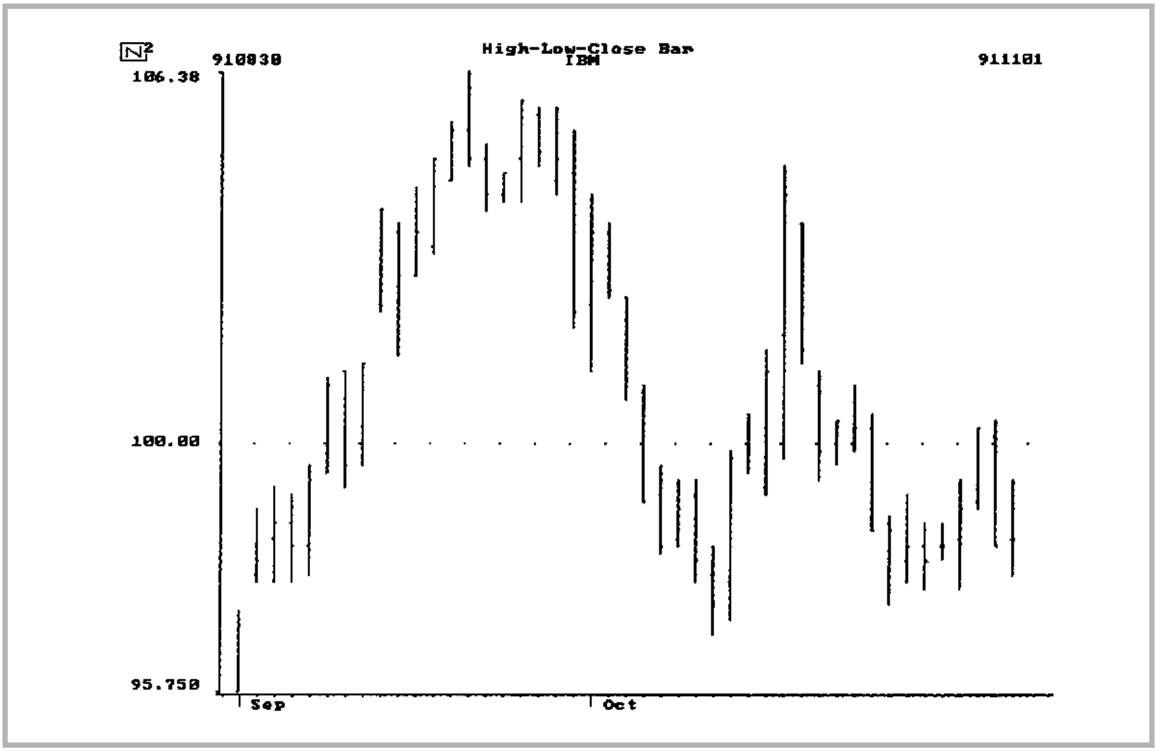


**Figure 1-4**

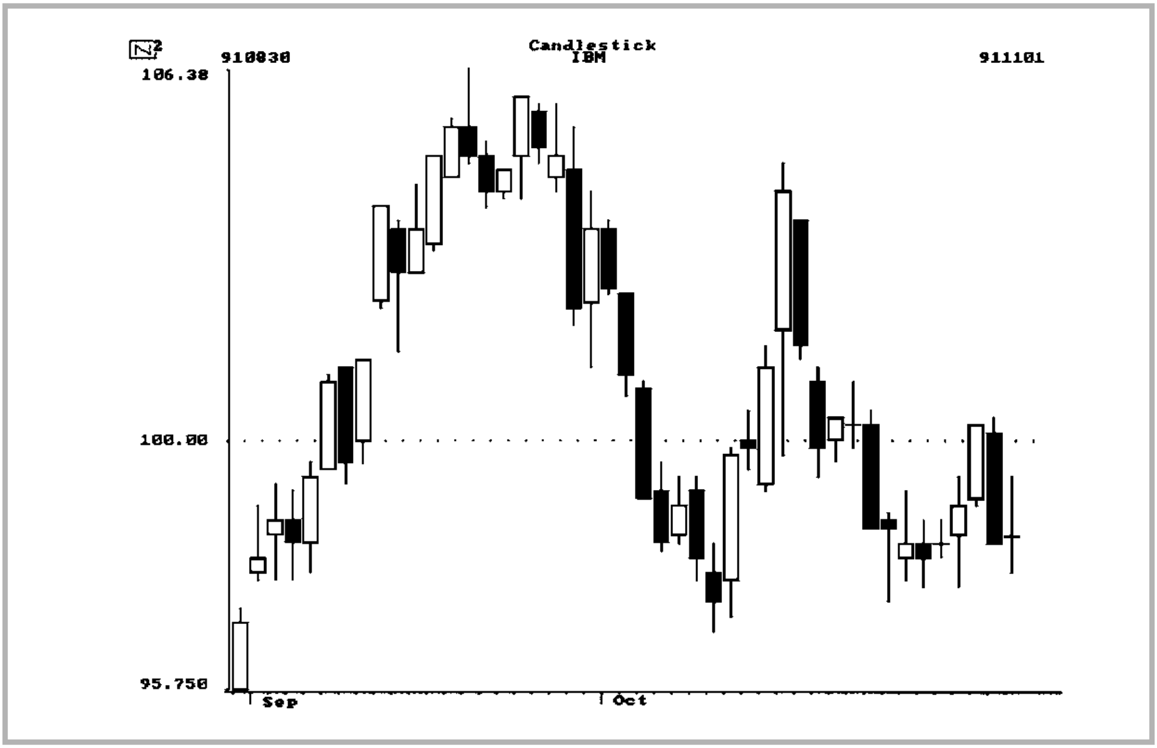


**Figure 1-5**

Japanese candlestick charts, you will prefer them because their clarity is superior and allows a quick and accurate interpretation of the data. This matter of interpretation is also what this book is about. Japanese candlestick charting and analysis will continue to grow and gain in popularity. For as long as it is used as intended, only a profit of doom would suggest its demise.

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CHAPTER TWO

# Candlestick Lines

A day of trading in any stock or futures market is represented in traditional charts by a single line or price bar; Japanese candlestick charting is no different, except that the information is so much more easily interpreted.

There is much information provided in a single candle line. This will help in understanding the psychology behind the many candle patterns described in later chapters. There are a few candle patterns that consist of only a single candlestick and also qualify as reversal patterns. They will be covered thoroughly in the chapter on reversal patterns.

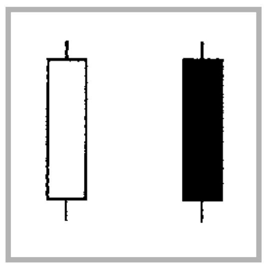
Each type of candle line has a unique name and represents a possible trading scenario for that day. Some candle lines have Japanese names and some have English names. Whenever possible, if the name is in English, the Japanese name will also be given. The Japanese name will be written in a format called *Romanji*. This is a method of writing Japanese so that it can be pronounced properly by non-Japanese-speaking people. Single candle lines are often referred to as yin and yang lines. The terms yin and yang are Chinese, but have been used by western analysis to account for polar terms, such as in/out, on/off, up/down, and over/under. (the Japanese equivalents are *inn* and *yoh*) Yin relates to bearish and yang relates to bullish. There are 9 basic yin and yang lines in candlestick analysis. These can be expanded to 15 different candle lines for a clearer explanation of the various possibilities. It will be shown in later chapters how most candle patterns can be reduced to single candle lines and maintain the same bullish or bearish connotations.

## LONG DAYS

Reference to long days is prevalent in most literature dealing with Japanese candlesticks. Long describes the length of the candlestick body, the difference between the open price and the close price, as shown in Figure 2-1. A long day represents a large price movement for the day. In other words, the open price and the close price were considerably different.

How much must the open and close price differ to qualify as a long day? Like most forms of analysis, context must be considered. Long compared to what? It is best to consider only the most recent price action to determine what is long and what is not. Japanese candlestick analysis is based solely upon the short-term price movement, so the determination of long days should be also. Anywhere from the previous 5 to 10 days should be more than adequate to produce the

**Figure 2-1**



proper results. Other acceptable methods of determining long days may also be used. These will be thoroughly discussed in the chapter on pattern identification and the recognition.

## SHORT DAYS

Short days, shown in Figure 2-2, may also be based on the same methodology as long days, with comparable results. There are also numerous days that do not fall into any of these two categories.

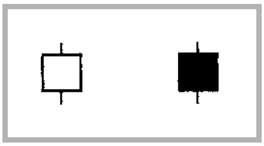


**Figure 2-2**

## MARUBOZU

Marubozu means close-cropped or close-cut in Japanese. Other interpretations refer to it as Bald or Shaven Head. In either case, the meaning reflects the fact that there is no shadow extending from the body at either the open or the close, or at both.

### Black Marubozu

A Black Marubozu is a long black body with no shadows on either end (Figure 2-3). This is considered an extremely weak line. It often becomes part of a bearish continuation or bullish reversal candle pattern, especially if it occurs during a downtrend. This line, being black, shows the weakness of the continuing downtrend. A long black line could be a final sell off; this is why it is often the first day of many bullish reversal patterns. It is also called a Major Yin or Marubozu of Yin.

Figure 2-3

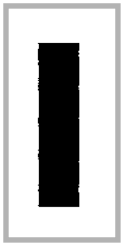
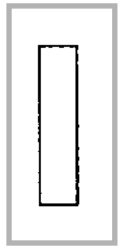


Figure 2-4



## White Marubozu

A White Marubozu (Figure 2-4) is a long white body with no shadow on either end. This is an extremely strong line when considered on its own merits. Opposite of the Black Marubozu, it often is the first part of a bullish continuation or bearish reversal candle pattern. It is sometimes called a Major Yang or Marubozu of Yang.

## Closing Marubozu

A Closing Marubozu has no shadow extending from the close end of the body, whether the body is white or black (Figure 2-5). If the body is white, there is no upper shadow because the close is at the top of the body. Likewise, if the body is black, there is no lower shadow because the close is a the bottom of the body. The Black Closing Marubozu (*yasunebike*) is considered a weak line and the White Closing Marubozu is a strong line.

## Opening Marubozu

The Opening Marubozu has no shadow extending from the open price end of the body (Figure 2-6). If the body is white, there would be no lower shadow, making it a strong bullish line. The Black Opening Marubozu (*yoritsuki takane*), with no upper shadow, is a weak and therefore bearish line. The Opening Marubozu is not as strong as the Closing Marubozu.

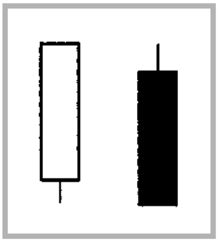


**Figure 2-5**

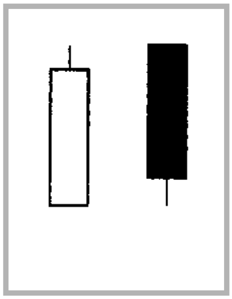


**Figure 2-6**

## SPINNING TOPS (*KOMA*)

Spinning Tops are candlestick lines that have small real bodies with upper and lower shadows that are of greater length than the body's length (Figure 2-7). This represents indecision between the bulls and the bears. The color of the body of a spinning top, along with the actual size of the shadows, is not important. The small body relative to the shadows is what makes the spinning top.

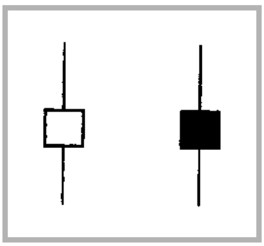


**Figure 2-7**

## DOJI

When the body of a candle line is so small that the open and the closing prices are equal, they are called Doji (simultaneous or concurrent) lines. A Doji occurs when the open and close for that day are the same, or certainly very close to being the same. The lengths of the shadows can vary. The perfect Doji has the same opening and closing price, however, there is some interpretation that must be considered. Requiring that the open and close be exactly equal would put too much of a constraint on the data and there would not be many Doji. If the difference between the open and close prices is within a few ticks (minimum trading increments), it is more than satisfactory.

Determining a Doji day is similar to the method used for identification of a long day; there are no rigid rules, only guidelines. Just like the long day, it depends upon previous prices. If the previous days were mostly Doji, then the Doji day is not important. If the Doji occurs alone, it's a signal that there is indecision and must not be ignored. In almost all cases, a Doji by itself would not be significant enough to forecast a change in the trend of prices, only a warning of impending trend change. A Doji preceeded by a long white day in an uptrend would be meaningful. This particular combination of days is referred to as a bearish Doji Star (Chapter 3). An uptrend that, all of a sudden, ceases to continue, would be caused for concern. A Doji means that there is uncertainty and indecision.

According to Nison, Doji tend to be better at indicating a change of trend when they occur at tops instead of at bottoms. This is related to the fact that for an uptrend to continue, new buying must be present. A downtrend can continue unabated. It is interesting to note that the Doji also means "goof" or "bungle."

## Long-Legged Doji (*juji*)

The Long-Legged Doji has long upper and lower shadows in the middle of the day's trading range, clearly reflecting the indecision of buyers and sellers (Figure 2-8). Throughout the day the market moved higher and then sharply lower, or vice versa. It then closed at or very near the opening price. If the opening and closing are in the center of the day's range, the line is referred to as a Long-Legged Doji. *Juji* means "cross."

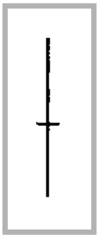


**Figure 2-8**

## Gravestone Doji (*tohba*)

The Gravestone Doji (*hakaishi*), shown in Figure 2-9, is another form of a Doji day. It develops when the Doji is at, or very near, the low of the day.

The Gravestone Doji, like many of the Japanese terms, is based on various analogies. In this case, the Gravestone Doji represents the graves of those who have died in battle.

If the upper shadow is quite long, it means that the Gravestone Doji is much more bearish. Prices open and trade higher all day only to close where they opened, which is also the low price for the day. This cannot possibly be interpreted as anything but a failure to rally. The Gravestone Doji at a market top is a specific version of a Shooting Star (Chapter 3). The only difference is the that the Shooting Star has a small body and the Gravestone Doji, being a Doji, has no body. Some Japanese sources claim that the Gravestone Doji can occur only on the ground, not in the air. This means it can be a bull-

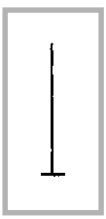


**Figure 2-9**

ish indication on the ground or at a market low, not as good as a bearish one. It certainly portrays a sense of indecision and a possible change in trend.

## Dragonfly Doji (*tonbo*)

The Dragonfly Doji, or Tonbo (pronounced *Tombo*), occurs when the open and close are at the high of the day (Figure 2-10). Like other Doji days, this one normally appears at market turning points. You will see in later chapters that this Doji is a special case of the Hanging Man and Hammer lines. A Tonbo line with a very long lower shadow (tail) (*shitahigi*) is also called a Takuri line. A Takuri line at the end of a down trend is extremely bullish.

## Four Price Doji

This rare Doji line occurs when all four price components are equal. That is, the open, high, low, and close are the same (Figure 2-11). This line could occur when a stock is very illiquid or the data source did not have any prices other than the close. Futures traders should not confuse this with a limit move. It is so rare that one should suspect data errors. However, it does represent complete and total uncertainty by traders in market direction.

**Figure 2-10**

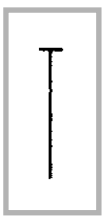


**Figure 2-11**

## STARS (*HOSHI*)

A Star appears whenever a small body gaps above or below the previous day's long body (Figure 2-12). Ideally, the gap should encompass the shadows, but this is not always necessary. A Star indicates some uncertainty in the marketplace. Stars are part of many candle patterns, primarily reversal patterns.

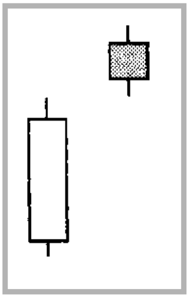


**Figure 2-12**

## PAPER UMBRELLA (*KARAKASA*)

Many of these lines are also included in the next chapter on candle patterns. Like the previously mentioned candle lines, the Umbrella lines have strong reversal implications. There is strong similarity between the Dragonfly Doji and this candle line. Two of the Umbrella lines are called the Hammer and Hanging Man, depending upon their location in the trend of the market.

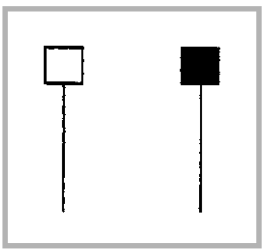


**Figure 2-13**

## CONCLUSION

The single candle lines are essential to Japanese candlestick analysis. When they are used by themselves, and then in combinations with other candle lines, a complete psyche of the market unfolds. Much of the analysis of these lines and patterns is part of Sakata's Method (Chapter 5). However, this book will go beyond the Sakata Method with additional patterns and methods. Some of these patterns are new; some are variations of the originals.

CHAPTER THREE

# Reversal Candle Patterns

A candle pattern can be a single candlestick line or multiple candlestick lines, seldom more than five or six. In Japanese literature, there is occasional reference to patterns that use even more candlesticks, but they will be included in the chapter on candle formations. The order in which the candle patterns are discussed does not reflect their importance or predictive ability. They are listed based upon the number of days or periods required for each pattern, with the one-day patterns first. Generally, within each category the patterns are then arranged based upon their frequency of occurrence.

Most of the candle patterns are inversely related. That is, for each bullish pattern, there is a similar bearish pattern. The primary difference is their position relative to the short-term trend of the market. The names of the bullish and bearish patterns may or may not be different. So that this chapter can serve as a reference, each pattern set will be covered using the same basic format. Some patterns retain their Japanese name while others have been given English interpretations. A few are identical in construction, but have different names. Any differences will be dealt with in the individual discussions.

Three small vertical lines will precede the pattern drawing. These lines only show the previous trend of the market and should not be used as immediate reference to pattern relationships.

## REVERSAL VERSUS CONTINUATION PATTERNS

Reversal and continuation patterns have been separated into different chapters. This chapter covers the reversal patterns and Chapter 4 covers the continuation patterns. This separation was done to add convenience and simplify future reference. This is mentioned here because the determination of bullish or bearish implications has to do only with continued price action and not with previous action. Previous price movement helps to determine only the pattern, not its ability to foresee or anticipate future price movement. Whether a reversal pattern or a continuation pattern, investment and trading decisions still need to be made, even if it is the fact that you decide to do nothing. Chapter 6 deals with this concept at length.

There is a normal expectancy to have a bullish pattern or situation prior to a bearish counterpart. That tendency will continue here, except when one counterpart tends to exhibit greater prevalence; then it will be covered first. A number of new patterns are introduced with this edition of this book. Many were created to serve as a complementary pattern to those that only had a bullish or bearish version, but not both. In those cases, the original is always presented first.

## CHAPTER FORMAT

Most of the candle patterns will be explained using a standard format that should ensure easy reference at a later date. Some candle patterns will not be covered as thoroughly as others because of their simplicity or similarity to other patterns. Some patterns are only modified versions of another pattern, and will be noted as such. Because many patterns have a counterpart reflecting the other side of the market, some of the scenarios will contain only one example. Additionally, some repetition may seem to occur. This too is so that later reference will be both easy and thorough. The usual format will be:

- Pattern detail information box

| **Pattern Name:** | Matching Low + | | | | **Type:** | R+ |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *niten zoko/kenuki* | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | No | | |
| **Frequency (MDaysBP):** | 590 | Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 69 | 64 | 62 | 61 | 60 | 59 | 59 |
| **Avg. % Gain:** | 3.63 | 4.71 | 5.42 | 5.98 | 6.64 | 6.98 | 7.37 |
| **% Losers:** | 31 | 36 | 38 | 39 | 40 | 41 | 41 |
| **Avg. % Loss:** | -2.60 | -3.42 | -3.92 | -4.39 | -4.75 | -5.13 | -5.48 |
| **Net Profit / Net Loss:** | 1.23 | 1.43 | 1.55 | 1.65 | 1.77 | 1.79 | 1.82 |

Each pattern (bullish + and bearish –) has an information box. This box contains:

- Pattern Name: with + for bullish and – for bearish
- Type: R = reversal, C = Continuation
- Japanese Name: Romanized name
- Trend Required: Yes or No
- Confirmation: Required, Suggested, or No

  Note on confirmation: This was an attempt to identify candle patterns that universally fell into two categories, one that seemed to never work well, and one that seemed to always work well. Those that never seemed to work well need confirmation (Required). Those that seemed to work well all of the time do not need confirmation

(No). A third category was derived because some of those that were originally in the "worked well" category still had a few statistics that were not good, therefore they were placed in the Suggested category, meaning that confirmation is suggested. It is boldly stated later in this book that all candle patterns should be confirmed with other technical methods. A few good ones are mentioned herein.

Frequency (MDaysBP): This is the number of mean (average) days between patterns with a classification of Quite Frequent, Frequent, Average, Rare, and Extremely Rare.

Statistics over 7 different days of performance: % Winners, Avg. % Gain, % Losers, Avg. % Loss, and Net Profit/Net Loss per Trade.

The components of the Pattern Detail Information are further explained in later chapters.

- Commentary
  - Description of pattern(s)
  - Western (traditional) counterpart(s)

- Graphic of classic pattern(s)
  - Detailed drawing of the classic pattern (days that can be either black or white are shown with shading)

- Rules of recognition
  - Simplistic rules for quick identification
  - Criteria for pattern recognition

- Scenarios/psychology behind the pattern
  - Possible trading scenarios that could have developed
  - General discussion of the psychology of each day

- Pattern flexibility
  - Situations that change the pattern's effectiveness
  - Allowable deviations from the classic pattern
  - Information for the numerically oriented and computer programmer
- Pattern breakdown
  - Reducing the pattern to a single candle line
- Related Patterns
  - Patterns that have similar formations
  - Patterns that are part of this pattern
- Examples

## INDEX OF REVERSAL PATTERNS

# ONE-DAY PATTERNS

## HAMMER AND HANGING MAN

| **Pattern Name:** | Hammer + | | | | **Type:** | R+ |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *kanazuchi/tonkachi* | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | |
| **Frequency (MDaysBP):** | 284 | Quite Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 41 | 43 | 44 | 44 | 45 | 46 | 47 |
| **Avg. % Gain:** | 3.06 | 3.96 | 4.74 | 5.33 | 5.93 | 6.51 | 6.96 |
| **% Losers:** | 59 | 57 | 56 | 56 | 55 | 54 | 53 |
| **Avg. % Loss:** | -3.25 | -4.05 | -4.66 | -5.17 | -5.70 | -6.15 | -6.52 |
| **Net Profit / Net Loss:** | -0.57 | -0.54 | -0.47 | -0.46 | -0.40 | -0.33 | -0.23 |

| **Pattern Name:** | Hanging Man - | | | | **Type:** | R- |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *kubitsuri* | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | |
| **Frequency (MDaysBP):** | 117 | Quite Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 69 | 66 | 64 | 62 | 61 | 60 | 59 |
| **Avg. % Gain:** | 3.63 | 4.10 | 4.49 | 4.87 | 5.21 | 5.54 | 5.84 |
| **% Losers:** | 31 | 34 | 36 | 38 | 39 | 40 | 41 |
| **Avg. % Loss:** | -2.81 | -3.85 | -4.60 | -5.23 | -5.77 | -6.25 | -6.71 |
| **Net Profit / Net Loss:** | 1.32 | 1.20 | 1.05 | 0.95 | 0.85 | 0.76 | 0.67 |

Figure 3-1

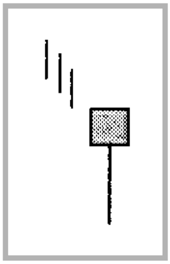
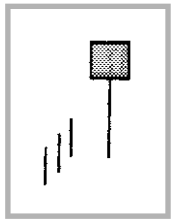


Figure 3-2



## Commentary

The Hammer and Hanging Man are each made of single candlestick lines (Figure 3-1 and 3-2). They have long lower shadows and small real bodies that are at or very near the top of their daily trading range. These were first introduced as paper umbrellas in Chapter 2. They are also special versions of the Tonbo/Takuri lines.

The Hammer occurs in a downtrend and is so named because it is hammering out a bottom. The Japanese word for Hammer (*tonkachi*) also means the ground or soil.

A Hanging Man occurs at the top of a trend or during an uptrend. The name Hanging Man (*kubitsuri*) comes from the fact that this candle line looks somewhat like a man hanging.

Another candle line similar to the Hammer is the Takuri (pronounced taguri) line. This Japanese word equates with climbing a rope or hauling up. The motion is not smooth and could be related to pulling up an anchor with your hands: as you change hands; the upward movement is interrupted momentarily. A Takuri line has a lower shadow at least three times the length of the body, whereas the lower shadow of a Hammer is a minimum of only twice the length of the body.

## Rules of Recognition

1. The small real body is at the upper end of the trading range.
2. The color of the body is not important.

3. The long lower shadow should be much longer than the length of the real body, usually two or three times.
4. There should be no upper shadow, or if there is, it should be very small.

## Scenarios and Psychology behind the Pattern

### *Hammer*

The market has been in a downtrend, so there is an air of bearishness. The market opens and then sells off sharply. However, the sell-off is abated and the market returns to, or near, its high for the day. The failure of the market to continue the selling reduces the bearish sentiment, and most traders will be uneasy with any bearish positions they might have. If the close is above the open, causing a white body, the situation is even better for the bulls. Confirmation would be a higher open with yet a still higher close on the next trading day.

### *Hanging Man*

For the Hanging Man, the market is considered bullish because of the uptrend. In order for the Hanging Man to appear, the price action for the day must trade much lower than where it opened, then rally to close near the high. This is what causes the long lower shadow, which shows how the market just might begin a sell-off. If the market opens lower the next day, there would be many participants with long positions that would want to look for an opportunity to sell. Steve Nison claims that a confirmation that the Hanging Man is bearish might be that the body is black and the next day opens lower.

## Pattern Flexibility

Features that will enhance the signal of a Hammer or Hanging Man pattern are an extra long lower shadow, no upper shadow, very small real body (almost Doji), the preceding sharp trend, and a body color that reflects the opposite sentiment (previous trend). This trait, when used on the Hammer, will change its name to a Takuri line. Takuri lines are generally more bullish than Hammers.

The body color of the Hanging Man and the Hammer can add to the significance of the pattern's predictive ability. A Hanging Man with a black body is more bearish than one with a white body. Likewise, a Hammer with a white body would be more bullish than one with a black body.

As with most single candlestick patterns like the Hammer and the Hanging Man, it is important to wait for confirmation. This confirmation may merely be the action on the open of the next day. Many times, though, it is best to wait for a confirming close on the following day. That is, if a Hammer is shown, the following day should close even higher before bullish positions are taken.

The lower shadow should be, at a minimum, twice as long as the body, but not more than three times. The upper shadow should be no more than 5 to 10 percent of the high-low range. The low of the body should be below the trend for a Hammer and above the trend for a Hanging Man.

## Pattern Breakdown

The Hammer and the Hanging Man patterns, being single candle lines, cannot be reduced further. See Paper Umbrella in Chapter 2.

## Related Patterns

The Hammer and Hanging Man are special cases of the Dragonfly Doji discussed in Chapter 2. In most instances, the Dragonfly Doji would be more bearish than the Hanging Man.

## Examples

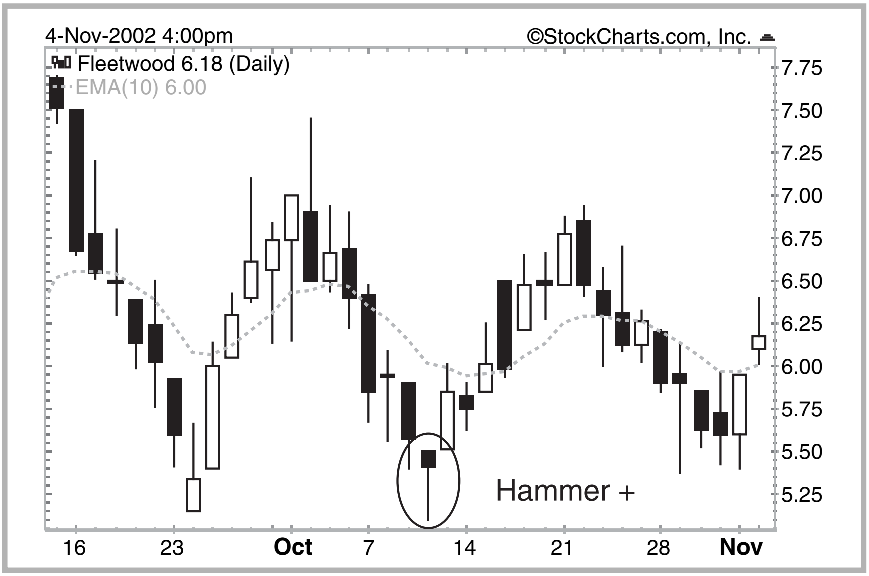



**Figure 3-3A**

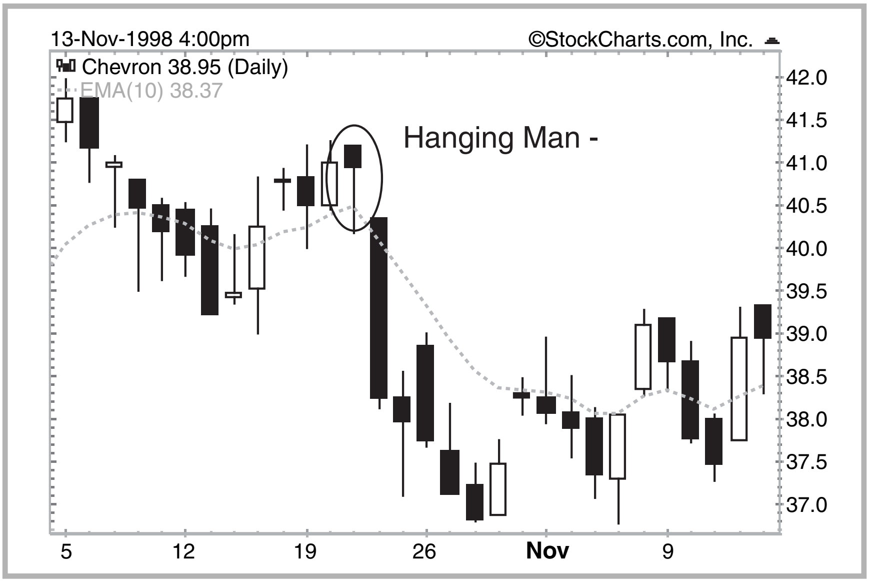



**Figure 3-3B**

## BELT HOLD

| **Pattern Name:** | Belt Hold + | | | | **Type:** R+ | |
|---|---|---|---|---|---|---|
| **Japanese Name:** | yorikiri | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | |
| Frequency (MDaysBP): | 6,466 | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 49 | 49 | 52 | 53 | 52 | 52 | 52 |
| **Avg. % Gain:** | 2.95 | 3.93 | 4.82 | 5.30 | 5.94 | 6.20 | 6.64 |
| **% Losers:** | 51 | 51 | 48 | 47 | 48 | 48 | 48 |
| **Avg. % Loss:** | -2.55 | -3.81 | -4.61 | -5.10 | -5.74 | -6.12 | -6.48 |
| **Net Profit / Net Loss:** | 0.14 | -0.02 | 0.25 | 0.35 | 0.33 | 0.24 | 0.31 |

| **Pattern Name:** | Belt Hold - | | | | **Type:** R- | |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *yorikiri* | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | |
| **Frequency (MDaysBP):** | 6,772 | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 48 | 48 | 47 | 46 | 46 | 45 | 46 |
| **Avg. % Gain:** | 2.72 | 3.29 | 3.93 | 4.71 | 5.02 | 5.48 | 5.63 |
| **% Losers:** | 52 | 52 | 53 | 54 | 54 | 55 | 54 |
| **Avg. % Loss:** | -2.69 | -3.68 | -4.07 | -4.42 | -5.02 | -5.59 | -6.07 |
| **Net Profit / Net Loss:** | -0.10 | -0.33 | -0.33 | -0.22 | -0.34 | -0.57 | -0.72 |

**Figure 3-4**

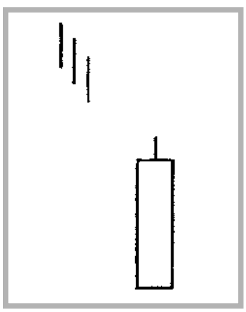
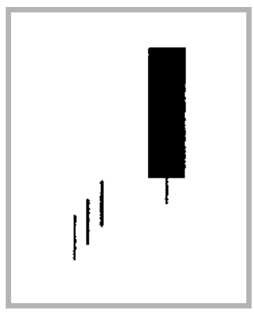


**Figure 3-5**



## Commentary

Belt Hold lines are also opening marubozu lines (Chapter 2). Remember that the opening marubozu does not have a shadow extending from the open end of the body. The bullish Belt Hold (Figure 3-4) is a white opening marubozu that occurs in a downtrend. It opens on the low of the day, rallies significantly against the previous trend, and then closes near its high but not necessarily at its high. The bearish Belt Hold (Figure 3-5) is a black opening marubozu that occurs in an uptrend. Similarly, it opens on its high, trades against the trend of the market, and then closes near its low. Longer bodies for Belt Hold lines will offer more resistance to the trend that they are countering.

Belt Hold lines, like most of the single-day patterns lose their importance if there are many of them in close proximity. The Japanese name of *yorikiri* means to push out. Steve Nison coined the name of the Belt Hold.

## Rules of Recognition

1. The Belt Hold line is identified by the lack of a shadow on one end.
2. The bullish white Belt Hold opens on its low and has no lower shadows.
3. The bearish black Belt Hold opens on its high and has no upper shadows.

## Scenarios and Psychology behind the Pattern

The market is trending when a significant gap in the direction of trend occurs on the open. From that point, the market never looks back: All further price action that day is the opposite of the previous trend. This causes much concern, and many positions will be covered or sold, which will help accentuate the reversal.

## Pattern Flexibility

Since this is a single candle pattern line, there is not much room for any flexibility.

## Related Patterns

The Belt Hold pattern is the same as the Opening Marubozu, discussed in Chapter 2. Like the Masubozu, the Belt Hold will form the first day of many more advanced candle patterns.

## Examples

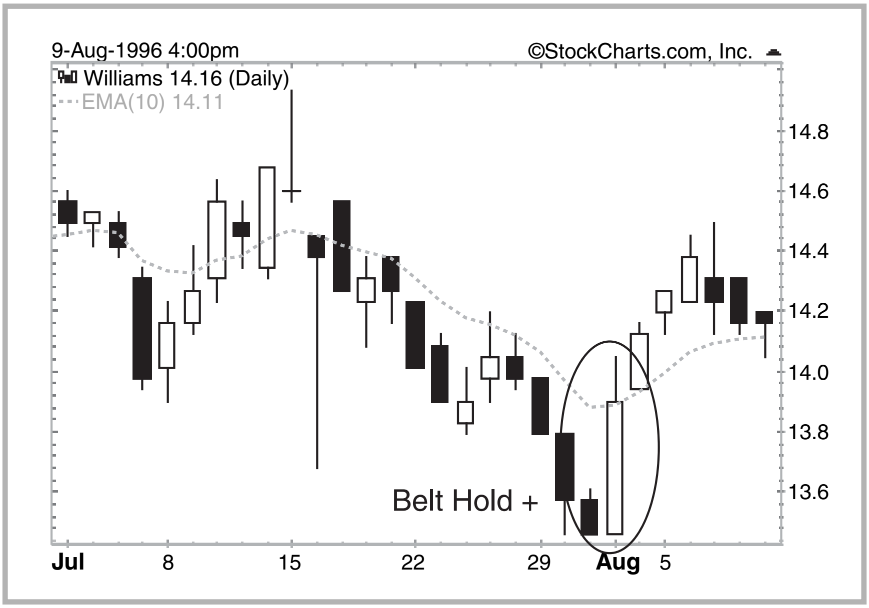



**Figure 3-6A**

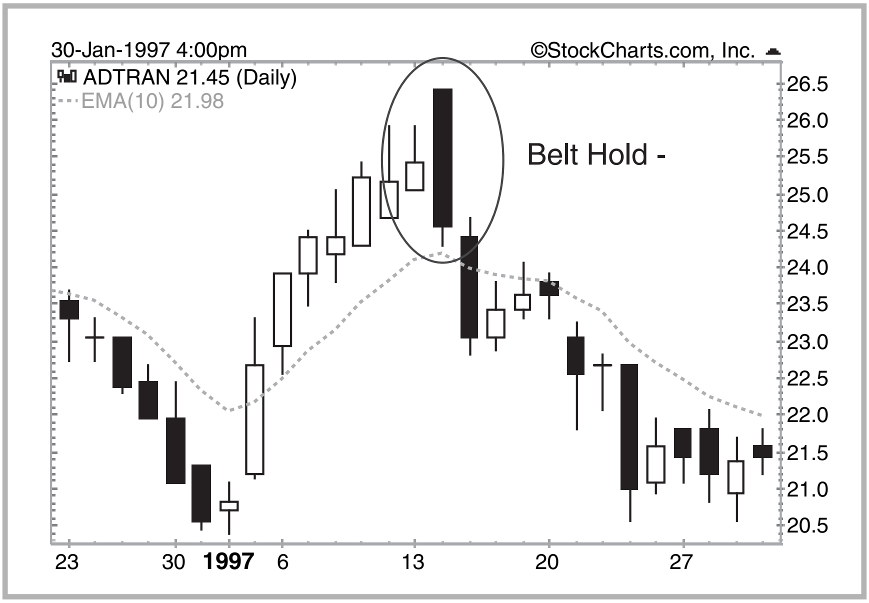



**Figure 3-6B**

## TWO-DAY PATTERNS

### ENGULFING

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Engulfing + | | | | | **Type:** R+ | |
| **Japanese Name:** | *tsutsumi* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Suggested | | |
| **Frequency (MDaysBP):** | 74 | | Quite Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 44 | 45 | 46 | 47 | 47 | 47 | 48 |
| **Avg. % Gain:** | 2.76 | 3.73 | 4.51 | 5.14 | 5.71 | 6.23 | 6.71 |
| **% Losers:** | 56 | 55 | 54 | 53 | 53 | 53 | 52 |
| **Avg. % Loss:** | -2.74 | -3.54 | -4.18 | -4.70 | -5.18 | -5.63 | -6.04 |
| **Net Profit / Net Loss:** | -0.27 | -0.27 | -0.18 | -0.11 | -0.06 | 0.00 | 0.02 |

| Pattern Name: | Engulfing - | | | | Type: R- | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *tsutsumi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | | Required | | |
| Frequency (MDaysBP): | 73 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| % Winners: | 45 | 45 | 45 | 46 | 46 | 46 | 45 |
| Avg. % Gain: | 2.29 | 3.08 | 3.70 | 4.23 | 4.68 | 5.10 | 5.48 |
| % Losers: | 55 | 55 | 55 | 54 | 54 | 54 | 55 |
| Avg. % Loss: | -2.55 | -3.38 | -4.07 | -4.66 | -5.23 | -5.74 | -6.20 |
| Net Profit / Net Loss: | -0.34 | -0.44 | -0.52 | -0.58 | -0.66 | -0.76 | -0.88 |

**Figure 3-7**

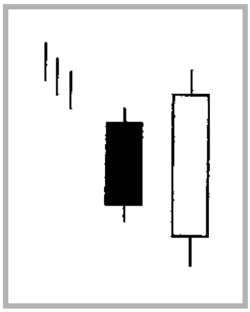
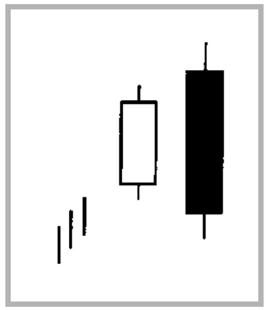


**Figure 3-8**



## Commentary

The Engulfing pattern consists of two real bodies of opposite color (Figures 3-7 and 3-8). The second day's body completely engulfs the prior day's body. The shadows are not considered in this pattern. It is also called the Embracing (*daki*) line because it embraces the previous day's line. When this occurs near a market top, or in an uptrend, it indicates a shifting of the sentiment to selling. A yin Tsutsumi after an uptrend is called the Final Daki line and is one of the Sakata techniques discussed in a later chapter.

The first day of the Engulfing pattern has a small body and the second day has a long real body. Because the second day's move is so much more dramatic, it reflects a possible end to the previous trend. If the bearish Engulfing pattern appears after a sustained move, it increases the chance that most bulls are already long. In this case, there may not be enough new money (bulls) to keep the market uptrend intact.

An Engulfing pattern is similar to the traditional outside day. Just like the Engulfing pattern, an outside day will close with prices higher and lower than the previous range with the close in the direction of the new trend.

## Rules of Recognition

1. A definite trend must be underway.
2. The second day's body must be completely engulfed by the prior day's body. This does not mean, however, that either the top or the bottom of the two bodies cannot be equal; it just means the both tops and both bottoms cannot be equal.
3. The first day's color should reflect the trend: black for a downtrend and white for an uptrend.
4. The second real body of the engulfing pattern should be the opposite color of the first real body.

## Scenarios and Psychology behind the Pattern

### *Bearish Engulfing Pattern*

An uptrend is in place when a small white body day occurs with not much volume. The next day, prices open at new highs and then quickly sell off. The sell-off is sustained by high volume and finally closes below the open of the previous day. Emotionally, the uptrend has been damaged. If the next (third) day's prices remain lower, a major reversal of the uptrend has occurred.

A similar, but opposite, scenario would exist for the bullish Engulfing pattern.

## Pattern Flexibility

The second day of the Engulfing patterns engulfs more than the real body; in other words, if the second day engulfs the shadows of the first day, the success of the pattern will be much greater.

The color of the first day should reflect the trend of the market. In an uptrend, the first day should be white, and vice versa. The color of the second, or the engulfing day, should be the opposite of the fist day.

Engulfing means that no part of the first day's real body is equal to or outside of the second day's real body. If the fist day's real body was engulfed by at least 30 percent, a much stronger pattern exists.

## Pattern Breakdown

The bullish Engulfing pattern reduces to a Paper Umbrella or Hammer, which reflects a market turning point (Figure 3-9). The bearish Engulfing pattern reduces to a pattern similar to the Shooting Star or possibly a Gravestone Doji, if the body is very small (Figure 3-10).

**Figure 3-9**

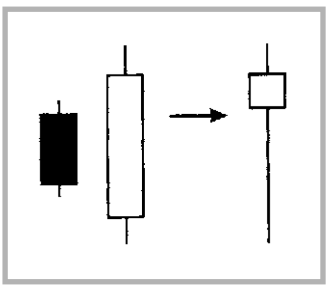
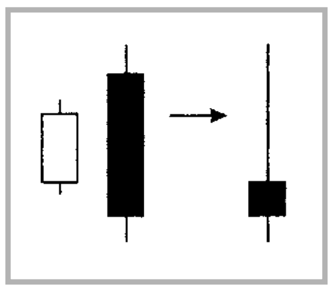


**Figure 3-10**



Both the bullish and bearish Engulfing patterns reduce to single lines that fully support interpretation.

## Related Patterns

The Engulfing pattern is also the first two days of the Three Outside patterns. The bullish Engulfing pattern would become the Three Outside Up pattern if the third day closed higher. Likewise, the bearish Engulfing pattern would make up the Three Outside Down patterns if the third day closed lower.

The Engulfing pattern is also a follow-through, or more advanced stage, of the Piercing Line and the Dark Cloud Cover. Because of this, the Engulfing pattern is considered more important.

## Examples

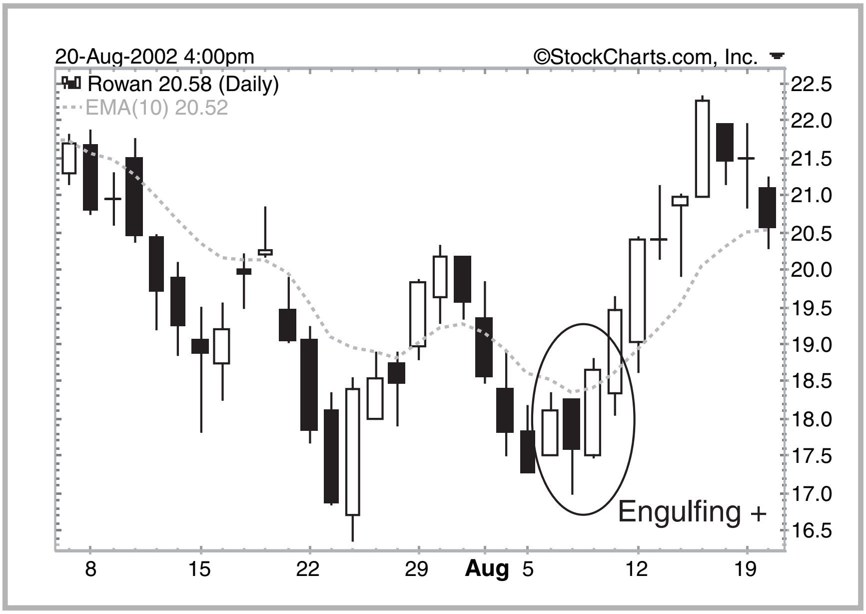



**Figure 3-11A**

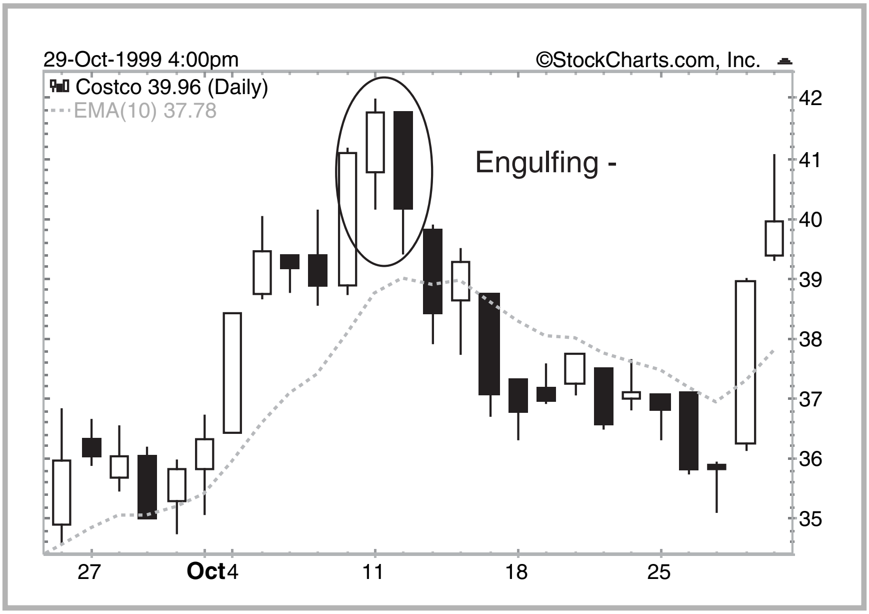



**Figure 3-11B**

## HARAMI

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Harami + | | | | | **Type:** | R+ |
| **Japanese Name:** | *harami* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | | No | |
| **Frequency (MDaysBP):** | 69 | | Quite Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 49 | 50 | 50 | 51 | 51 | 51 | 52 |
| **Avg. % Gain:** | 2.69 | 3.67 | 4.43 | 5.12 | 5.70 | 6.24 | 6.77 |
| **% Losers:** | 51 | 50 | 50 | 49 | 49 | 49 | 48 |
| **Avg. % Loss:** | -2.46 | -3.34 | -4.01 | -4.60 | -5.11 | -5.56 | -6.00 |
| **Net Profit / Net Loss:** | 0.07 | 0.12 | 0.23 | 0.35 | 0.44 | 0.50 | 0.58 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Harami - | | | | | **Type:** R- | |
| **Japanese Name:** | *harami* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 59 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 50 | 49 | 49 | 49 | 49 | 49 | 49 |
| **Avg. % Gain:** | 2.15 | 2.91 | 3.50 | 3.99 | 4.44 | 4.84 | 5.21 |
| **% Losers:** | 50 | 51 | 51 | 51 | 51 | 51 | 51 |
| **Avg. % Loss:** | -2.28 | -3.17 | -3.91 | -4.48 | -4.99 | -5.47 | -5.89 |
| **Net Profit / Net Loss:** | -0.08 | -0.17 | -0.25 | -0.28 | -0.32 | -0.36 | -0.43 |

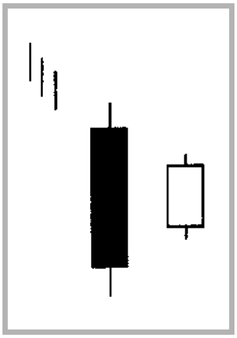


**Figure 3-12**

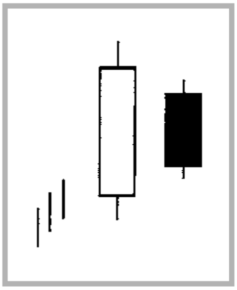


**Figure 3-13**

## Commentary

The Harami pattern is made up of the opposite arrangement of days as the Engulfing pattern (Figure 3-12 and 3-13). Harami is a Japanese word for pregnant or body within. You will find that in most instances the real bodies in the Harami are opposite in color, also like the Engulfing pattern.

You will probably note that the Harami is quite similar to the traditional inside day. The difference, of course, is that the traditional inside day uses the highs and lows, whereas the Harami is concerned only with the body (open and close). This requirement to use the open and close prices instead of the high and low prices is common in Japanese candlestick analysis and philosophy. The Harami requires that the body of the scond day be completely engulfed by the body of the first day.

## Rules of Recognition

1. A long day is preceded by a reasonable trend.
2. The color of the long first day is not as important, but it is best if it reflects the trend of the market.
3. A short day follows the long day, with its body completely inside the body range of the long day. Just like the Engulfing day, the tops or bottoms of the bodies can be equal, but both tops and both bottoms cannot be equal.
4. The short day should be the opposite color of the long day.

## Scenarios and Psychology behind the Pattern

### *Bullish Harami*

A downtrend has been in place for some time. A long black day with average volume has occurred, which helps to perpetuate the bearishness. The next day, prices open higher, which shocks many complacent bears, and many shorts are quickly covered, causing the price to rise further. The price rise is tempered by the usual late comers seeing this as an opportunity to short the trend they missed the first time. Volume on this day has exceeded the previous day, which suggests strong short covering. A confirmation of the reversal on the third day would provide the needed proof that the trend has reversed.

### *Bearish Harami*

An uptrend is in place and is perpetuated with a long white day and high volume. The next day, prices open lower and stay in a small range throughout the day, closing even lower, but still within the previous day's body. In view of this sudden deterioration of trend, traders should become concerned about the strength of this market, especially if volume is light. It certainly appears that the trend is about to change. Confirmation on the third day would be a lower close.

## Pattern Flexibility

The long day should reflect the trend. In an uptrend the long day should be white and a downtrend should produce a black long day. The amount of engulfing of the second day by the first day should be significant. The long day should engulf the short day by at least 30 percent. Remember that long days are based upon the data preceding them.

## Pattern Breakdown

The bullish Harami reduces to a Paper Umbrella or a Hammer line, which indicates a market turning point (Figure 3-14). The bearish Harami reduces to a Shooting Star line, which also is a bearish line (Figure 3-15). Both the bullish and the bearish Harami are supported by their single-line breakdowns.

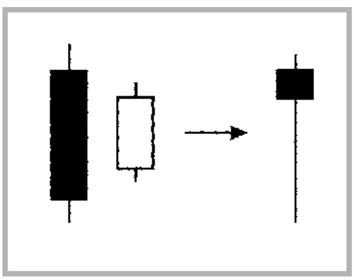


**Figure 3-14**

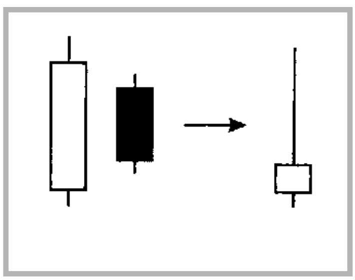


**Figure 3-15**

## Related Patterns

The Harami pattern is the first two days of the Three Inside Up and Three Inside Down patterns. A bullish Harami would be part of the Three Inside Up and a bearish Harami would be part of the Three Inside Down.

## Examples

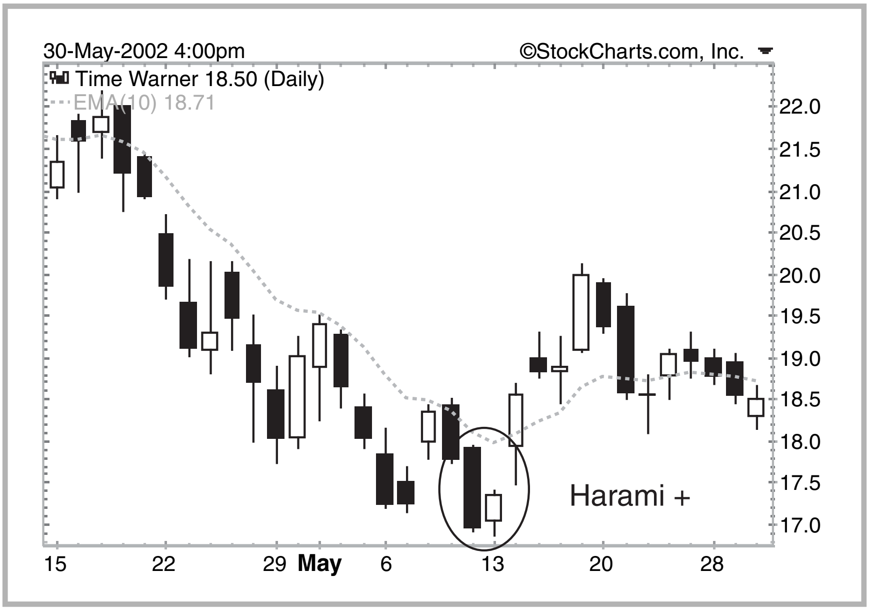



**Figure 3-16A**

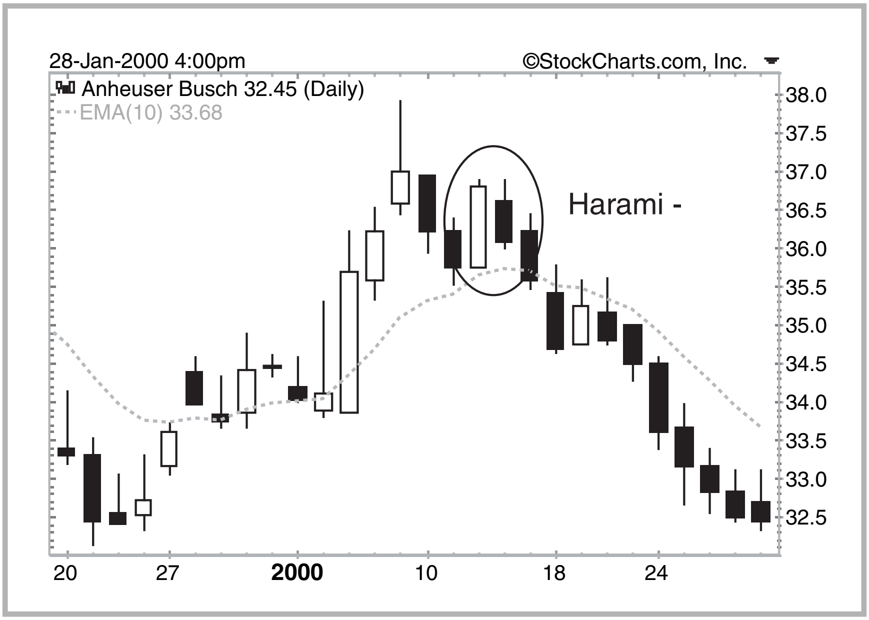



**Figure 3-16B**

## HARAMI CROSS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Harami Cross + | | | | **Type:** | R+ | |
| **Japanese Name:** | *harami yose sen* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | | |
| **Frequency (MDaysBP):** | 355 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 52 | 52 | 52 | 53 | 53 | 53 |
| **Avg. % Gain:** | 2.86 | 3.75 | 4.47 | 5.11 | 5.65 | 6.13 | 6.66 |
| **% Losers:** | 48 | 48 | 48 | 48 | 47 | 47 | 47 |
| **Avg. % Loss:** | -2.65 | -3.37 | -3.94 | -4.44 | -4.92 | -5.33 | -5.64 |
| **Net Profit / Net Loss:** | 0.17 | 0.25 | 0.34 | 0.47 | 0.56 | 0.63 | 0.74 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Harami Cross - | | | | | **Type:** R- | |
| **Japanese Name:** | *harami yose sen* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 299 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 51 | 51 | 51 | 50 | 50 | 50 | 50 |
| **Avg. % Gain:** | 2.17 | 2.73 | 3.23 | 3.62 | 3.97 | 4.29 | 4.57 |
| **% Losers:** | 49 | 49 | 49 | 50 | 50 | 50 | 50 |
| **Avg. % Loss:** | -2.41 | -3.11 | -3.72 | -4.17 | -4.62 | -5.02 | -5.43 |
| **Net Profit / Net Loss:** | -0.05 | -0.11 | -0.17 | -0.21 | -0.25 | -0.32 | -0.39 |

**Figure 3-17**

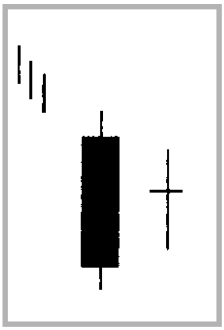
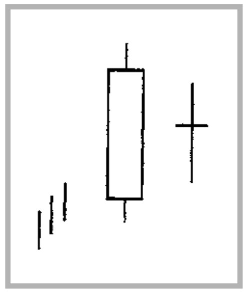


**Figure 3-18**



## Commentary

The Harami pattern consists of a long body followed by a smaller body. It is the relative size of these two bodies that make the Harami important. Remember that Doji days, where the open and close price are equal, represent days of indecision. Therefore, small body days that occur after longer body days can also represent a day of indecision. The more the indecision and uncertainty, the more likelihood of a trend change. When the body of the second day becomes a Doji, the pattern is referred to as a Harami Cross (Figure 3-17 and 3-18), with the cross being the Doji. The Harami Cross is a better reversal pattern than the regular Harami.

### Rules of Recognition

1. A long day occurs within a trending market.
2. The second day is a Doji (open and close are equal).
3. The second-day Doji is within the range of the previous long day.

### Scenarios and Psychology behind the Pattern

The psychology behind the Harami Cross starts out the same as that for the basic Harami pattern. A trend has been in place when, all of a sudden, the market gyrates throughout a day without exceeding the body range of the previous day. What's worse, the market closes at the same price as it opened. Volume of this Doji day also drys up, reflecting the complete lack of decision of traders. A significant reversal of trend has occurred.

### Pattern Flexibility

The color of the long day should reflect the trend. The Doji can have an open and a close price that are within 2 to 3 percent of each other if, and only if, there are not many Doji days in the preceding data.

### Pattern Breakdown

The bullish and bearish Harami Crosses reduce to single lines that support their interpretation in most instances (Figure 3-19 and 3-20). The body of the single-day reduction can be considerably longer than what is allowed for a Paper Umbrella or Hammer line. The fact that the breakdown is not contrary to the patter is supportive.

Figure 3-19

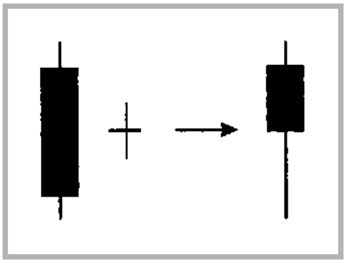
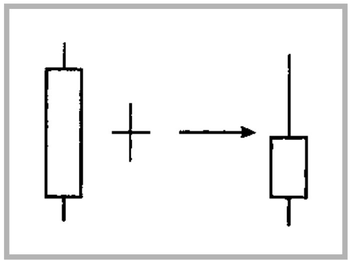


Figure 3-20



## Related Patterns

The Harami Cross could possibly be the beginning of a Rising or a Falling Three Methods, depending on the next few days' price action. The Rising and Falling Three Method patterns are continuation patterns, which are in conflict with the signal given by the Harami Cross.

## Examples

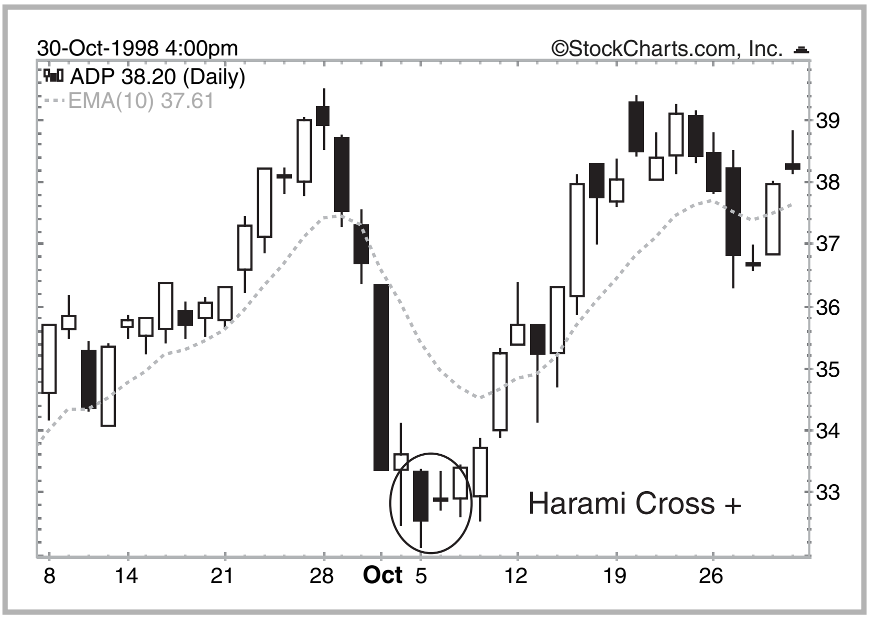



Figure 3-21A

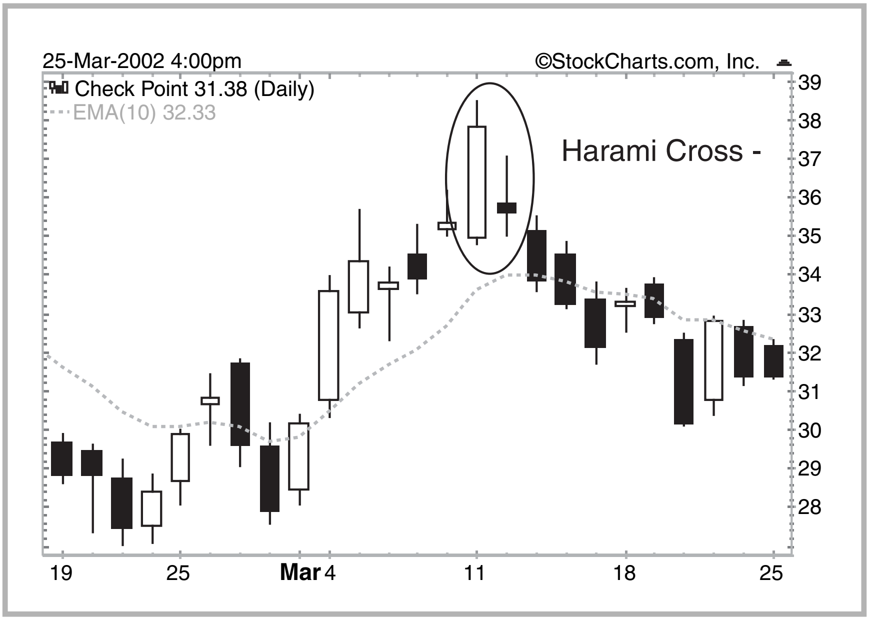



**Figure 3-21B**

## INVERTED HAMMER AND SHOOTING STAR

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Inverted Hammer + | | | | **Type:** R+ | | |
| **Japanese Name:** | *tohba* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | | |
| **Frequency (MDaysBP):** | 1,226 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 67 | 64 | 61 | 61 | 60 | 60 | 59 |
| **Avg. % Gain:** | 4.06 | 4.67 | 5.23 | 5.90 | 6.33 | 6.90 | 7.43 |
| **% Losers:** | 33 | 36 | 39 | 39 | 40 | 40 | 41 |
| **Avg. % Loss:** | -2.74 | -3.51 | -4.05 | -4.67 | -5.15 | -5.52 | -5.99 |
| **Net Profit / Net Loss:** | 1.44 | 1.46 | 1.42 | 1.55 | 1.59 | 1.74 | 1.81 |

| Pattern Name: | Shooting Star - | | | | Type: R- | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *nagare boshi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | | Required | | |
| Frequency (MDaysBP): | 3,418 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 46 | 47 | 48 | 49 | 49 | 49 | 49 |
| Avg. % Gain: | 2.77 | 3.73 | 4.36 | 4.99 | 5.47 | 5.92 | 6.26 |
| % Losers: | 54 | 53 | 52 | 51 | 51 | 51 | 51 |
| Avg. % Loss: | -3.28 | -4.34 | -5.03 | -5.58 | -6.19 | -6.87 | -7.22 |
| Net Profit / Net Loss: | -0.44 | -0.54 | -0.50 | -0.43 | -0.44 | -0.62 | -0.67 |

Figure 3-22

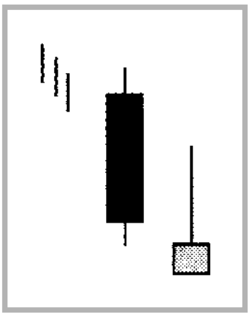
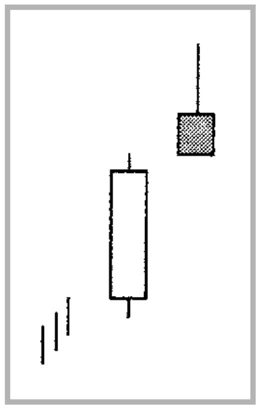


Figure 3-23



## Commentary

### *Inverted Hammer*

The Inverted Hammer is a bottom reversal line (Figure 3-22). Similar to its cousin the Hammer, it occurs in a downtrend and represents a possible reversal of trend. Common with most single- and double-candlestick patterns, it is important to wait for verification, in this case bullish verification. This could be in a form of the next day's opening above the Inverted Hammer's body. Because the closing price is near the low for the day and the market actually traded much higher, verification is most important. Additionally, there is little reference to this pattern in Japanese literature.

### *Shooting Star*

The Shooting Star (Figure 3-23) is a single-line pattern that indicates an end to the upward move. It is not a major reversal signal. The Shooting Star line looks exactly the same as the Inverted Hammer. The difference, of course, is that the Shooting Star occurs at market tops. A rally attempt was completely aborted when the close occurred near the low of the day. The body of the Shooting Star does gap above the previous day's body. This fact actually means that the Shooting Star could be referred to as a two-line pattern because the previous day's body must be considered.

## Rules of Recognition

### *Inverted Hammer*

1. A small real body is formed near the lower part of the price range.
2. No gap down is required, as long as the pattern falls after a downtrend.
3. The upper shadow is usually no more than two times as long as the body.
4. The lower shadow is virtually nonexistent.

### *Shooting Star*

1. Prices gap open after an uptrend.
2. A small real body is formed near the lower part of the price range.
3. The upper shadow is at least three times as long as the body.
4. The lower shadow is virtually nonexistent.

## Scenario and Psychology behind the Pattern

### *Inverted Hammer*

A downtrend had been in place when the market opens with a down gap. A rally throughout the day fails to hold and the market closes near its low. Similar to the scenario of the Hammer and the Hanging Man, the opening of the following day is crucial to the success or failure of this pattern to call a reversal of trend. If the next day opens above the Inverted Hammer's body, a potential trend reversal will cause shorts to be covered, which would also perpetuate the rally. Similarly, an Inverted Hammer could easily become the middle day of a more bullish Morning Star pattern.

### *Shooting Star*

During an uptrend, the market gaps open, rallies to a new high, and then closes near its low. This action, following a gap up, can only be considered as bearish. Certainly, it would cause some concern to any bulls who have profits.

## Pattern Flexibility

Single-day candlesticks allow little flexibility. The length of the shadow will help in determining its strength. The upper shadow should be at least twice the length of the body. There should be no lower shadow, or at least not more than 5 to 10 percent of the high-low range. Like most situations, the color of the body can help, if it reflects the sentiment of the pattern.

## Pattern Breakdown

Even though the Inverted Hammer and the Shooting Star are considered as single-day patterns, the previous day must be used to add to

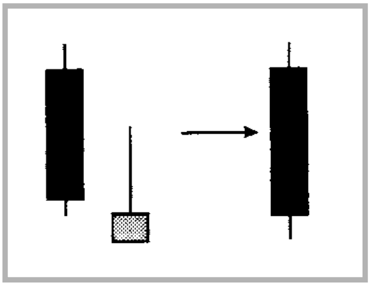


Figure 3-24

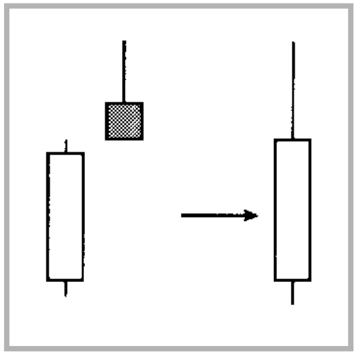


Figure 3-25

the patterns' successfulness. The Inverted Hammer pattern reduces to a long black candle line, which is always viewed as a bearish indication when considered alone (Figure 3-24). The Shooting Star pattern reduces to a long white candle line, which almost always is considered a bullish line (Figure 3-25). Both of these patterns are in direct conflict with their breakdowns. This indicates that further confirmation should always be required before acting on them.

## Related Patterns

As the Hammer and Hanging Man were related to the Dragonfly Doji, the Shooting Start and Inverted Hammer are cousins to the Gravestone Doji.

## Examples

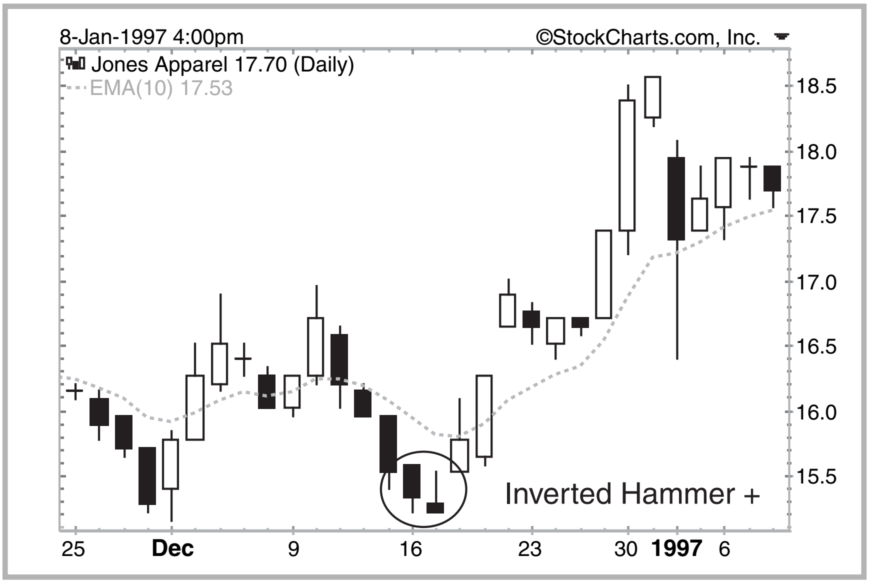



Figure 3-26A

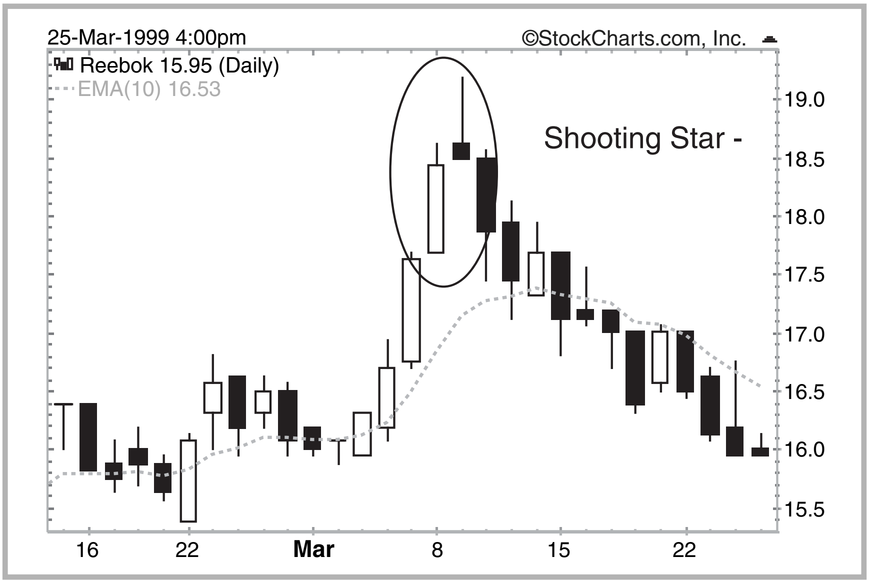



Figure 3-26B

## PIERCING LINE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Piercing Line + | | | | **Type:** R+ | | |
| **Japanese Name:** | *kirikomi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | | |
| **Frequency (MDaysBP):** | 1,212 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 46 | 48 | 49 | 49 | 51 | 50 |
| **Avg. % Gain:** | 2.61 | 3.43 | 4.21 | 4.69 | 5.33 | 5.81 | 6.21 |
| **% Losers:** | 53 | 54 | 52 | 51 | 51 | 49 | 50 |
| **Avg. % Loss:** | -2.54 | -3.45 | -4.03 | -4.60 | -5.11 | -5.49 | -5.89 |
| **Net Profit / Net Loss:** | -0.13 | -0.26 | -0.10 | -0.03 | 0.04 | 0.21 | 0.19 |

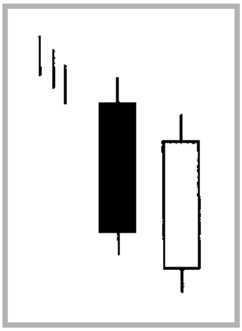


**Figure 3-27**

### Commentary

The Piercing Line pattern, shown in Figure 3-27, is essentially the opposite of the Dark Cloud Cover (see next pattern). This pattern occurs in a downtrending market and is a two-line or two-day pattern. The first day is black, which supports the downtrend and the second day is a long white day, which opens at a new low and then closes above the midpoint of the preceding black day. *Kirikomi* means a cutback or a switchback.

### Rules of Recognition

1. The first day is a long black body continuing the downtrend.
2. The second day is a white body which opens below the low of the previous day (that's low, not close).
3. the second day closes within but above the midpoint of the previous day's body.

### Scenarios and Psychology behind the Pattern

A long black body forms in a downtrend, which maintains the bearishness. A gap to the downside in the next day's open further perpetuates the bearishness. However, the market rallies all day and closes much higher. In fact the close is above the midpoint of the body of the long black day. This action causes concern to the bears and a potential bottom has been made. Candlestick charting shows this action quite well, where standard bar charting would hardly discern it.

### Pattern Flexibility

The white real body should close more than halfway into the prior black candlestick's body, If it didn't, you probably should wait for more bullish confirmation. There is no flexibility to this rule with the Piercing pattern. The Piercing pattern's white candlestick must rise more than halfway into the black candlestick's body. There are three additional candle patterns called On Neck Line, In Neck Line, and Thrusting Line (covered in Chapter 4), which make the definition of the Piercing Line so stringent. These three patterns are similar to the Piercing Line but are classified as bearish continuation patterns because the second day doesn't rally nearly as much.

The more penetration into the prior day's black body, the more likely it will be a successful reversal pattern. Remember that if it closes above the body of the previous day, it is not a Piercing pattern, but a bullish Engulfing day.

Both days of the Piercing pattern should be long days. The second day must close above the midpoint and below the open of the first day, with no exceptions.

## Pattern Breakdown

The Piercing Line pattern reduces to a Paper Umbrella or Hammer line, which is indicative of a market reversal or turning point (Figure 3-28). The single candle line reduction fully supports the bullishness of the Piercing Line.

## Related Patterns

Three patterns begin in the same way as the Piercing Line. However, they do not quite give the reversal signal that the Piercing Line does and are considered continuation patterns. These are the On Neck Line, In Neck Line, and Thrusting Line (Chapter 4). The bullish Engulfing pattern is also an extension, or more mature situation, of the Piercing Line.

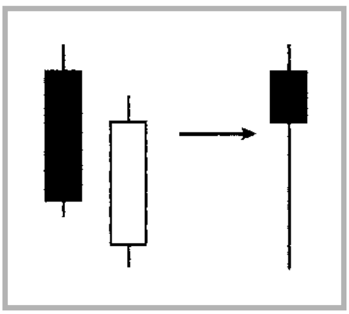


**Figure 3-28**

## Example

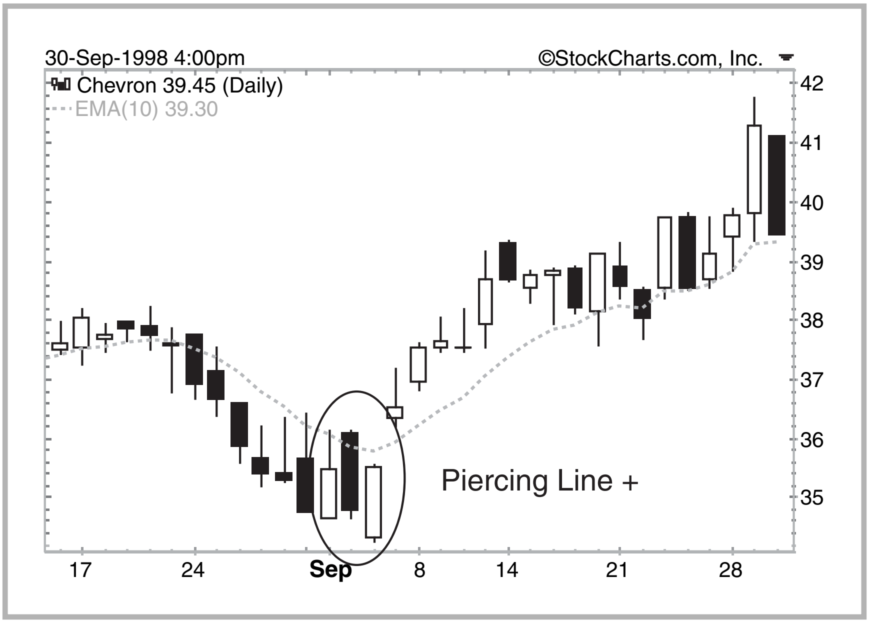



**Figure 3-29**

## DARK CLOUD COVER

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Dark Cloud Cover - | | | | **Type:** R- | | |
| **Japanese Name:** | *kabuse* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 903 | Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 46 | 46 | 46 | 47 | 47 | 47 |
| **Avg. % Gain:** | 2.25 | 3.03 | 3.69 | 4.22 | 4.69 | 5.16 | 5.54 |
| **% Losers:** | 53 | 54 | 54 | 54 | 53 | 53 | 53 |
| **Avg. % Loss:** | -2.51 | -3.33 | -4.07 | -4.78 | -5.41 | -5.90 | -6.42 |
| **Net Profit / Net Loss:** | -0.25 | -0.38 | -0.47 | -0.58 | -0.65 | -0.72 | -0.81 |

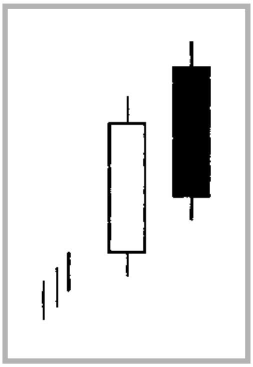


**Figure 3-30**

## Commentary

The Dark Cloud Cover (Figure 3-30) is a bearish reversal pattern and the counterpart of the Piercing pattern (Figure 3-27). Because this pattern only occurs in an uptrend, the first day is a long white day. This is one of the few times that the high or low is used in candle pattern definitions. Trading lower throughout the day results in the close being below the midpoint of the long white day.

This reversal pattern, like the opposite Piercing Line, has a marked effect on the attitude of traders because of the higher open followed by the much lower close. There are no exceptions to this pattern. *Kabuse* means to get covered or to hang over.

## Rules of Recognition

1. The first day is a long white body, which is continuing the uptrend.
2. The second day is a black body day with the open above the previous day's high (that's the high, not the close).
3. The second (black) day closes within and below the midpoint of the previous white body.

## Scenarios and Psychology behind the Pattern

The market is in an uptrend. Typical in an uptrend, a long white candlestick is formed. The next day the market gaps higher on the opening, however, that is all that is remaining to the uptrend. The market drops to close well into the body of the white day, in fact, below its midpoint. People who were bullish would certainly have to rethink their strategy with this type of action. Like the Piercing Line, a significant reversal of trend has occurred.

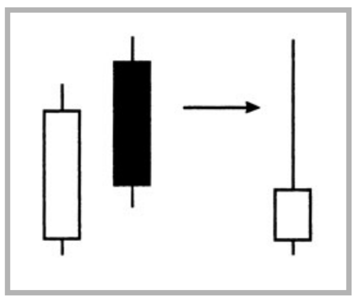
## Pattern Flexibility

The more penetration of the black body's close into the prior white body, the greater the chance for a top reversal. The first day should be a long day, with the second day opening significantly higher. This merely accentuates the reversal of sentiments in the market.

## Pattern Breakdown

The Dark Cloud Cover pattern reduces to a Shooting Star line, which supports the bearishness of the pattern (Figure 3-31). If the second day's black body closes deeply into the first day, the breakdown would be a Gravestone Doji, which also fully supports the bearishness.

**Figure 3-31**



## Related Patterns

The Dark Cloud Cover is also the beginning of a bearish Engulfing pattern. Because of this, it would make the bearish Engulfing pattern a more bearish reversal signal than the Dark Cloud Cover.

## Example

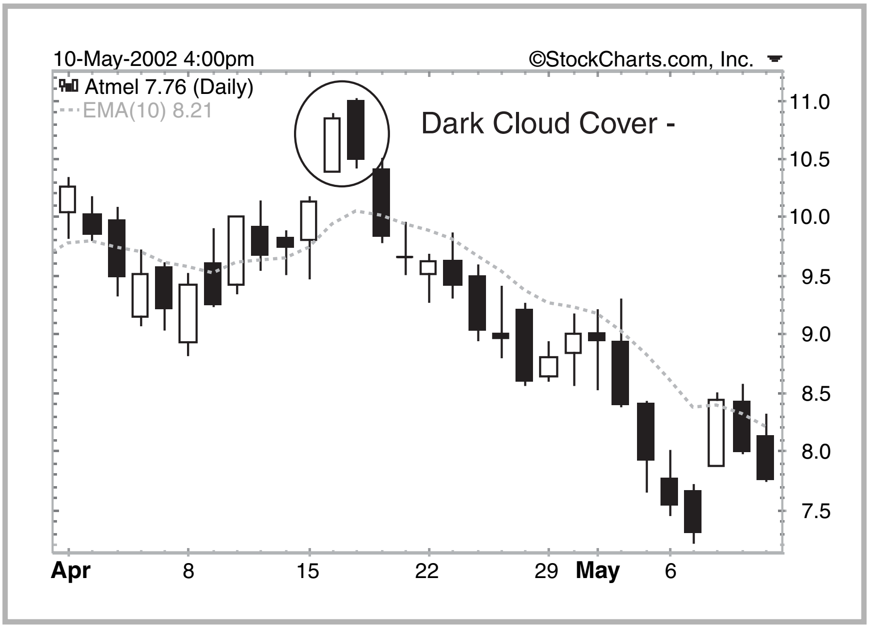



**Figure 3-32**

## DOJI STAR

| Pattern Name: | Doji Star + | | | | Type: | R+ | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *doji bike* | | | | | | |
| Trend Required: | Yes | Confirmation: | | No | | | |
| Frequency (MDaysBP): | 539 | Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **% Winners:** | 53 | 53 | 54 | 54 | 54 | 54 | 54 |
| **Avg. % Gain:** | 2.98 | 4.03 | 4.75 | 5.47 | 6.11 | 6.65 | 7.17 |
| **% Losers:** | 47 | 47 | 46 | 46 | 46 | 46 | 46 |
| **Avg. % Loss:** | -2.53 | -3.58 | -4.30 | -4.82 | -5.30 | -5.78 | -6.28 |
| **Net Profit / Net Loss:** | 0.36 | 0.46 | 0.54 | 0.69 | 0.82 | 0.93 | 1.00 |

| Pattern Name: | Doji Star - | | | | Type: | R- | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *doji bike* | | | | | | |
| Trend Required: | Yes | Confirmation: | | Suggested | | | |
| Frequency (MDaysBP): | 416 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 53 | 53 | 52 | 52 | 52 | 52 | 51 |
| **Avg. % Gain:** | 2.27 | 3.13 | 3.78 | 4.35 | 4.81 | 5.22 | 5.62 |
| **% Losers:** | 47 | 47 | 48 | 48 | 48 | 48 | 49 |
| **Avg. % Loss:** | -2.43 | -3.45 | -4.17 | -4.77 | -5.33 | -5.78 | -6.20 |
| **Net Profit / Net Loss:** | 0.07 | 0.01 | -0.02 | -0.05 | -0.07 | -0.09 | -0.16 |

**Figure 3-33**

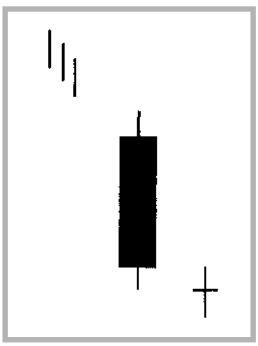
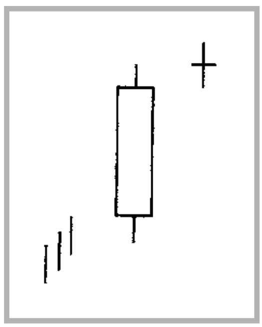


**Figure 3-34**



## Commentary

A Doji Star is a warning that a trend is about to change. It is a long real body, which should reflect the previous trend. A downtrend should produce a black body, an uptrend, a white body (Figures 3-33 and 3-34). The next day, prices gap in the direction of the trend, then close at the opening. This deterioration of the previous trend is immediate cause for concern. The clear message of the Doji Star is an excellent example of the value of the candlestick method of charting. If you were using close only or standard bar charts, the deterioration of the trend would not quite yet be apparent. Candlesticks, however, show that the trend is abating because of the gap in real bodies by the Doji Star.

## Rules of Recognition

1. The first day is a long day.
2. The second day gaps in the direction of the previous trend.
3. The second day is a Doji.
4. The shadows on the Doji day should not be excessively long, especially in the bullish case.

## Scenarios and Psychology behind the Pattern

Considering the bearish Doji Star, the market is in an uptrend and is further confirmed by a strong white day. The next day gaps even higher, trades in a small range, and then closes at or near its open. This will erode almost all confidence from the previous rally. Many positions have been changed, which caused the Doji in the first place. The next day's open, if lower, would set the stage for a reversal of trend.

## Pattern Flexibility

If the gap can also contain the shadows, the significance of the trend change is greater. The first day should also reflect the trend with its body color.

## Pattern Breakdown

The bullish Doji Star reduces to a long black candlestick, which does not support the bullishness of the pattern (Figure 3-35). The bearish Doji Star reduces to a long white candle line, which puts it in direct conflict with the pattern (Figure 3-36). These breakdown conflicts should not be ignored.

## Related Patterns

The Doji Star is the first two days of either the Morning Doji Star or Evening Doji Star.

**Figure 3-35**

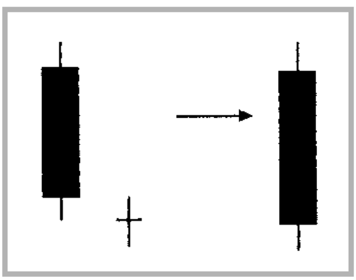
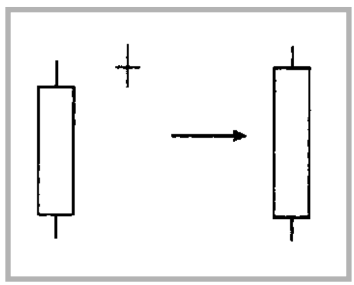


**Figure 3-36**



## Examples

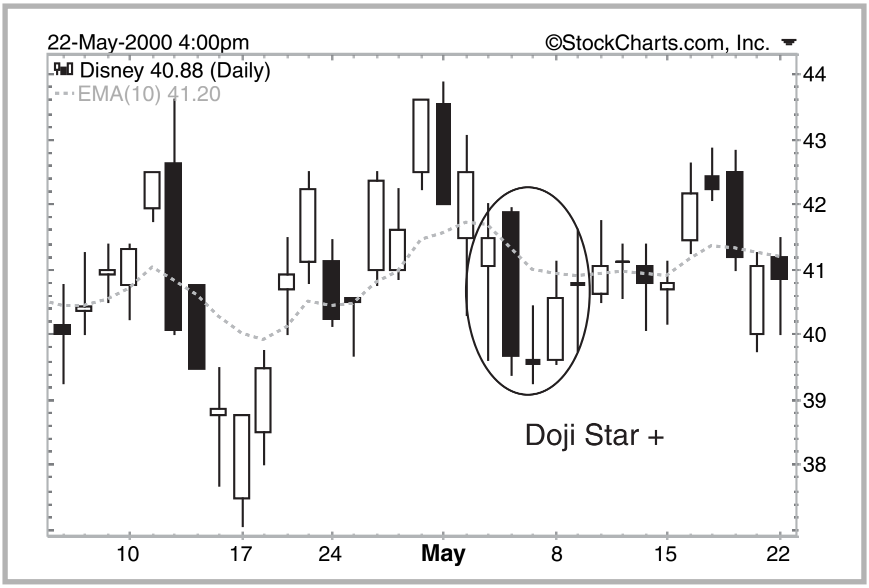



**Figure 3-37A**

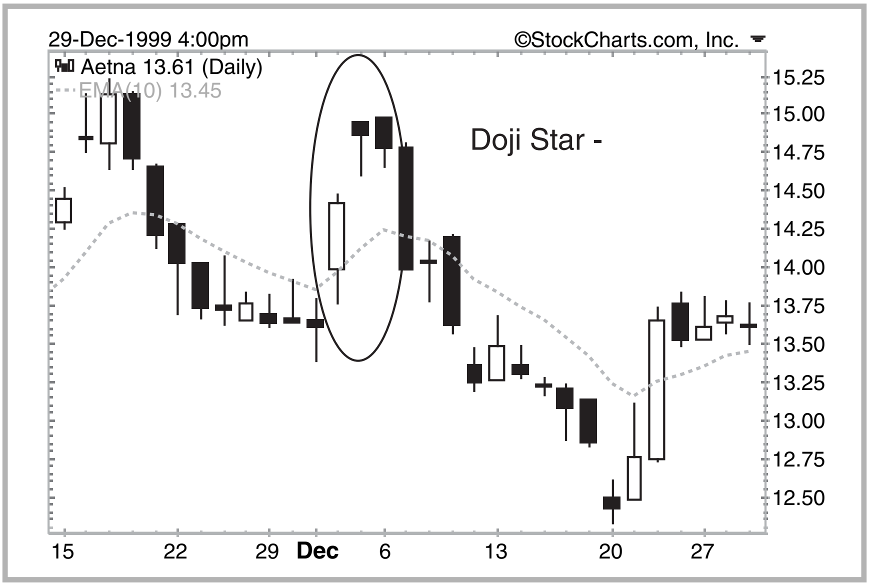



**Figure 3-37B**

## MEETING LINES

| **Pattern Name:** | Meeting Lines + | | | | **Type:** | R+ |
|---|---|---|---|---|---|---|---|
| **Japanese Name:** | *deai sen* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | | |
| **Frequency (MDaysBP):** | 3,132 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 45 | 48 | 48 | 48 | 50 | 50 | 51 |
| **Avg. % Gain:** | 2.78 | 3.55 | 4.33 | 4.94 | 5.52 | 6.06 | 6.57 |
| **% Losers:** | 55 | 52 | 52 | 52 | 50 | 50 | 49 |
| **Avg. % Loss:** | -2.61 | -3.24 | -3.95 | -4.43 | -4.86 | -5.22 | -5.58 |
| **Net Profit / Net Loss:** | -0.14 | -0.01 | 0.03 | 0.06 | 0.27 | 0.43 | 0.53 |

| **Pattern Name:** | Meeting Lines - | | | | **Type:** | R- | |
|---|---|---|---|---|---|---|---|
| **Japanese Name:** | *deai sen* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 2,732 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 49 | 48 | 49 | 50 | 49 | 49 |
| **Avg. % Gain:** | 2.27 | 2.93 | 3.52 | 3.96 | 4.25 | 4.71 | 4.96 |
| **% Losers:** | 53 | 51 | 52 | 51 | 50 | 51 | 51 |
| **Avg. % Loss:** | -2.83 | -3.70 | -4.28 | -4.97 | -5.51 | -5.87 | -6.27 |
| **Net Profit / Net Loss:** | -0.35 | -0.41 | -0.47 | -0.53 | -0.59 | -0.62 | -0.73 |

### Commentary

Meeting Lines are formed when opposite-colored candlesticks have the same closing price. Some literature refers to Meeting Lines as Counterattack Lines. *Deaisen* means lines that meet and *gyaku-shusen* means counteroffensive lines.

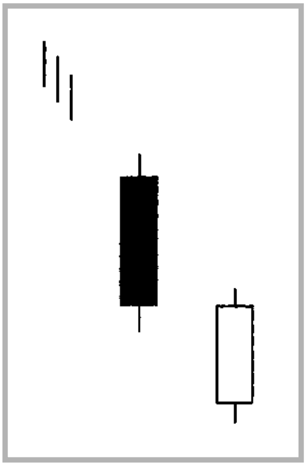


Figure 3-38

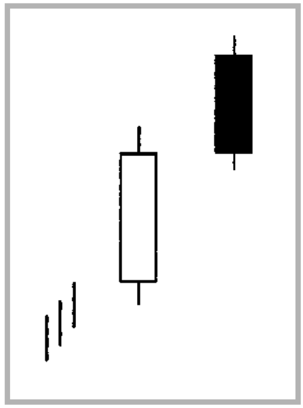


Figure 3-39

## Bullish Meeting Line

This pattern normally occurs during a decline. The first day of this pattern is a long black candlestick (Figure 3-38). The next day opens sharply lower and puts the downtrend into a compromising position. The bullish Meeting Line is somewhat similar in concept to the bullish Piercing Line, with the difference being the amount the second day rebounds. The Meeting Line only rises up to the first day's close while the Piercing Line's second day goes above the midpoint of the first day's body. The bullish Meeting Line is not as significant as the Piercing Line. Also, do not confuse this with the On Neck Line covered in Chapter 4.

## Bearish Meeting Line

An almost opposite relationship exists for the bearish Meeting Line relative to the Dark Cloud Cover. The bearish Meeting Line (Figure 3-39) opens at a new high and then closes at the same close of the previous day, while the Dark Cloud cover drops to below the midpoint.

## Rules of Recognition

1. The lines have bodies that extend the current trend.
2. The first body's color always reflects the trend: black for downtrend and white for uptrend.
3. The second body is the opposite color.
4. The close of each day is the same.
5. Both days should be long days.

## Scenarios and Psychology behind the Pattern

### *Bullish Meeting Line*

The market has been in a downtrend when a long black day forms, which further perpetuates the trend. The next day opens with a gap down, then rallies throughout the day to close at the same close as the previous day. This fact shows how previous price benchmarks are used by traders: the odds are very good that a reversal has taken place. If the third day opens higher, confirmation has been given.

## Pattern Flexibility

The Meeting Line pattern should consist of two long lines. However, many times the second day is not nearly as long as the first day. This doesn't seem to affect the pattern's ability; confirmation is still suggested. It is also best if each day is a Closing Marubozu.

## Pattern Breakdown

The Meeting Lines break down into single candle lines that offer no support for their case (Figure 3-40 and 3-41). The single lines are similar to the first line in the pattern, with a shadow that extends in the direction of the second day. Again, the breakdown neither confirms the pattern nor indicates lack of support.

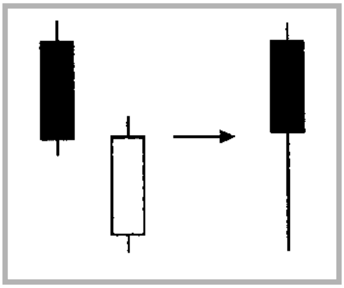


Figure 3-40

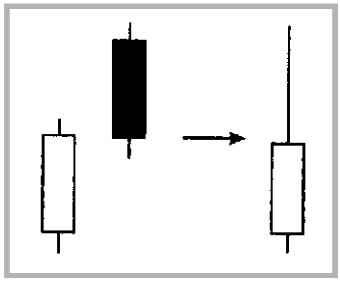


Figure 3-41

## Related Patterns

Somewhat opposite in appearance are the Separating Lines, which are continuation patterns. One can also see the potential for these lines to become a Dark Cloud Cover or a Piercing Line, if there is any penetration of the first body by the second.

## Examples

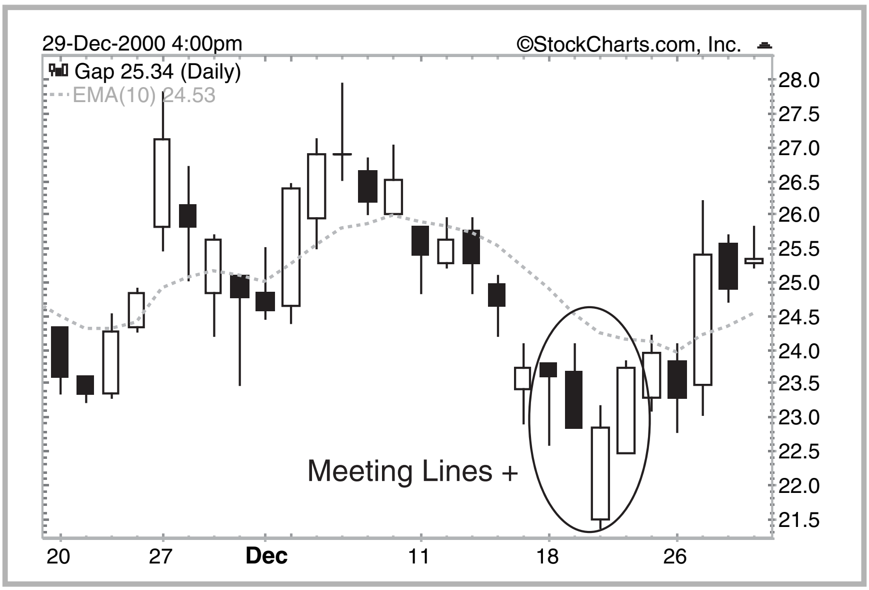



Figure 3-42A

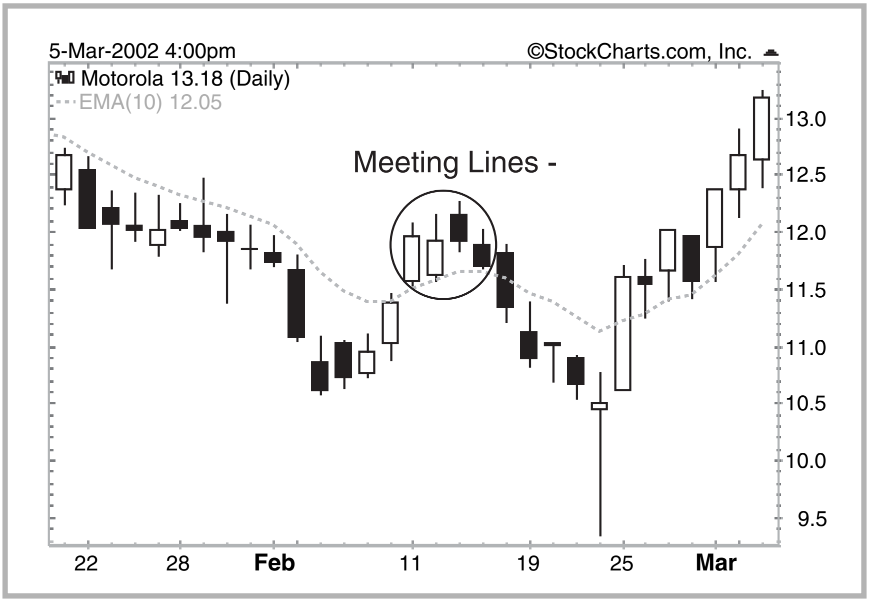



**Figure 3-42B**

## HOMING PIGEON

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Homing Pigeon + | | | | | **Type:** R+ | |
| **Japanese Name:** | *shita banare kobato gaeshi* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | No | | |
| **Frequency (MDaysBP):** | 648 | | Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 54 | 54 | 54 | 54 | 54 | 54 | 55 |
| **Avg. % Gain:** | 3.20 | 4.25 | 5.09 | 5.81 | 6.55 | 7.02 | 7.64 |
| **% Losers:** | 46 | 46 | 46 | 46 | 46 | 46 | 45 |
| **Avg. % Loss:** | -2.57 | -3.54 | -4.20 | -4.81 | -5.31 | -5.88 | -6.26 |
| **Net Profit / Net Loss:** | 0.49 | 0.62 | 0.75 | 0.86 | 1.01 | 1.08 | 1.28 |

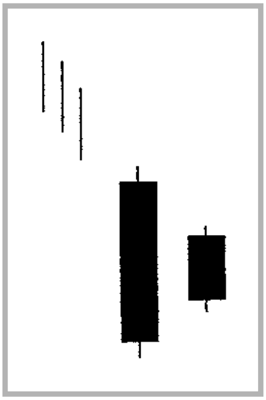


**Figure 3-43**

## Commentary

The Homing Pigeon closely resembles the Harami pattern, except that both of its bodies are black rather than opposite in color.

## Rules of Recognition

1. A long black body occurs in a downtrend.
2. A short black body is completely inside the previous day's body.

## Scenarios and Psychology behind the Pattern

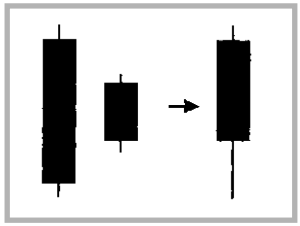
The market is in a downtrend, evidenced by a long black day. The next day, prices open higher, trade completely within the prior day's body, and then close slightly lower. Depending upon the severity of the previous trend, this shows a deterioration and offers an opportunity to get out of the market.

## Pattern Flexibility

Two-day patterns do not offer much flexibility.

## Pattern Breakdown

Figure 3-44



The Homing Pigeon pattern reduces to a long black candle line with a lower shadow, which certainly is not a bullish line (Figure 3-44). Confirmation would definitely be suggested.

## Related Patterns

The Harami is similar in its candle line relationship, but both of its days must be black.

## Example

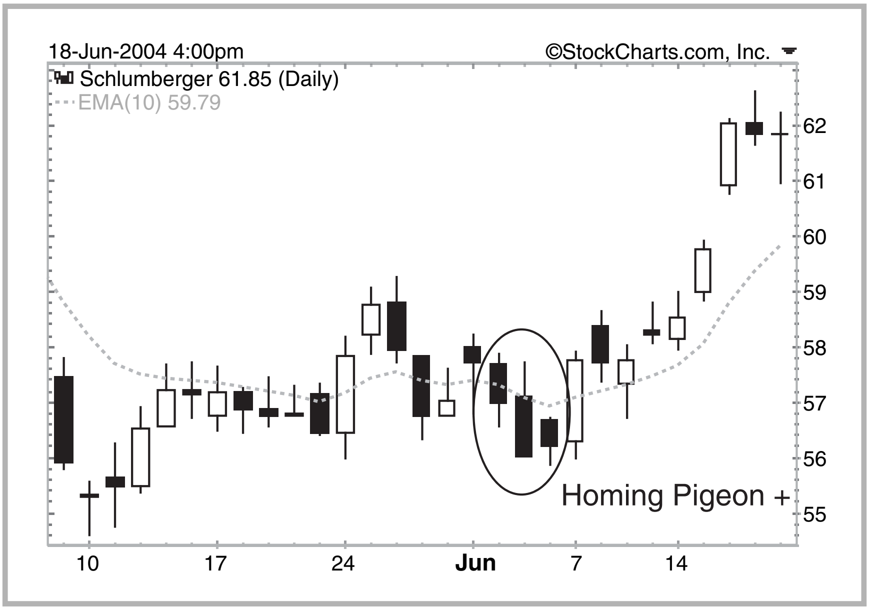



Figure 3-45

## DESCENDING HAWK

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Descending Hawk - | | | | **Type:** R- | | |
| **Japanese Name:** | *kakouchu no taka* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | | |
| **Frequency (MDaysBP):** | 545 | Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 56 | 55 | 54 | 53 | 52 | 52 | 52 |
| **Avg. % Gain:** | 2.39 | 3.00 | 3.57 | 3.98 | 4.38 | 4.70 | 5.05 |
| **% Losers:** | 44 | 45 | 46 | 47 | 48 | 48 | 48 |
| **Avg. % Loss:** | -2.36 | -3.28 | -3.91 | -4.59 | -5.06 | -5.56 | -6.05 |
| **Net Profit / Net Loss:** | 0.28 | 0.16 | 0.09 | -0.01 | -0.11 | -0.19 | -0.28 |

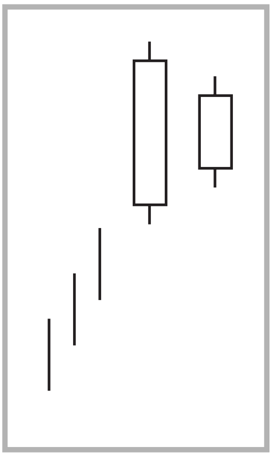


**Figure 3-46**

### Commentary

The Descending Hawk is a two-day bearish reversal pattern. This pattern was created to provide a complementary pattern to the bullish Homing Pigeon.

## Rules of Recognition

1. A long white body develops in an uptrend.
2. Both real bodies must be white.
3. The second day's body is completely engulfed by the first day's body.
4. Both days' bodies must be long.

## Scenarios and Psychology behind the Pattern

The Descending Hawk pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. The long white day adds to the bullishness already present. The next day, prices open lower. Trading is somewhat confined this second day, and prices finally close up near their highs for the day. You would want to see prices open lower the next day and then close below the first day's open as confirmation for this pattern.

## Pattern Flexibility

Both days of the Descending Hawk pattern must have long bodies. The body of a candlestick is the part between the open and the close. A long body, in this instance, is a body that occupies more than 50% of the high-low range. Do not confuse a long body requirement with a long day requirement. By definition, both days of the Descending Hawk pattern will have relatively short shadows.

## Pattern Breakdown

The Descending Hawk breaks down to a white body with a long upper shadow. It is recommended that confirmation be obtained.

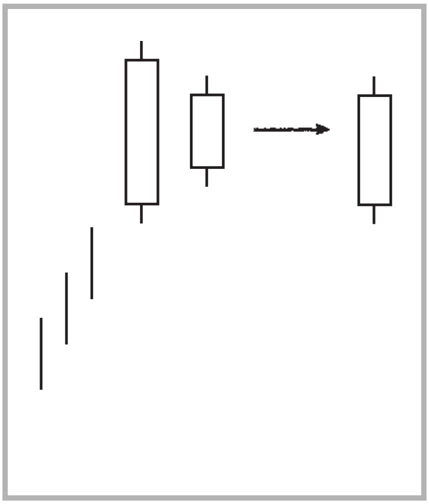


**Figure 3-47**

## Related Patterns

The Descending Hawk pattern is similar to the bearish Harami pattern. The second day of the Descending Hawk pattern is white, while the second day of the bearish Harami pattern is black.

### Example

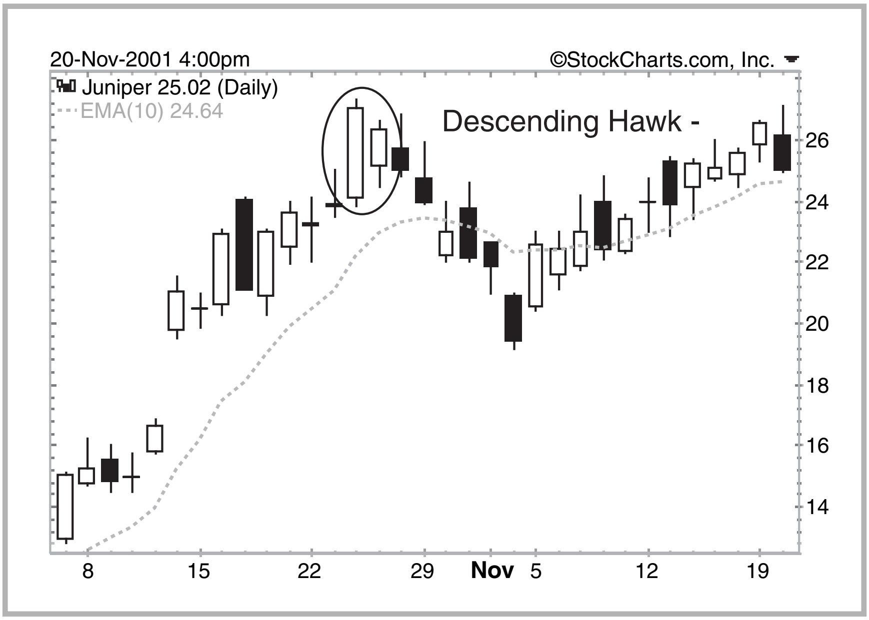



**Figure 3-48**

## MATCHING LOW

| **Pattern Name:** | Matching Low + | | | | **Type:** | R+ |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *niten zoko/kenuki* | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | No | |
| **Frequency (MDaysBP):** | 590 | | Frequent | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 69 | 64 | 62 | 61 | 60 | 59 | 59 |
| **Avg. % Gain:** | 3.63 | 4.71 | 5.42 | 5.98 | 6.64 | 6.98 | 7.37 |
| **% Losers:** | 31 | 36 | 38 | 39 | 40 | 41 | 41 |
| **Avg. % Loss:** | -2.60 | -3.42 | -3.92 | -4.39 | -4.75 | -5.13 | -5.48 |
| **Net Profit / Net Loss:** | 1.23 | 1.43 | 1.55 | 1.65 | 1.77 | 1.79 | 1.82 |

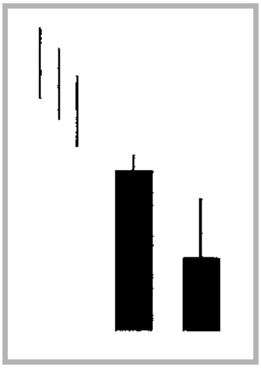


**Figure 3-49**

### Commentary

The Matching Low pattern follows a concept similar to that used in the Stick Sandwich pattern. In fact, by removing the middle day in the Stick Sandwich pattern, you will get a Matching Low pattern. A long black day continues the downtrend. The next day opens higher, but then closes at the same close of the previous day. This yields two black days together with their lower bodies (close) equal. This pattern indicates a bottom has been made, even though the new low was tested and there was no follow through, which is indicative of a good support price.

### Rules of Recognition

1. A long black day occurs.
2. The second day is also a black day with its close equal to the close of the first day.

### Scenarios and Psychology behind the Pattern

The market has been lower, as evidenced by another long black day. The next day, prices open higher, trade still higher, and then close at the same price as before. This is a classic indication of short-term support and will cause much concern from any apathetic bears who ignore it. Apathetic bears are short the market, and quite comfortable with their short positions. If they ignore the Matching Low as a possible trend reversal, it will cause them much concern.

An interesting concept is presented with this pattern. The psychology of the market is not necessarily with the action behind the daily trading, but with the fact that the trading closes at the same price on both days.

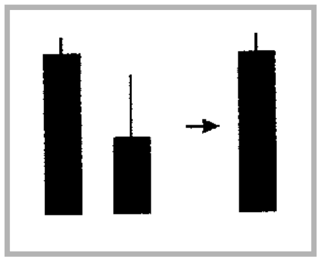
## Pattern Flexibility

The length of the bodies of the two days may be either long or short without affecting the meaning of the pattern.

## Pattern Breakdown

The Matching Low pattern reduces to a long black line, which is usually bearish (Figure 3-50). Confirmation would be highly recommended.

**Figure 3-50**



## Related Patterns

The Matching Low closely resembles the Homing Pigeon pattern, but because the closes are equal, the second day does not quite fit the definition of being engulfed.

## Examples

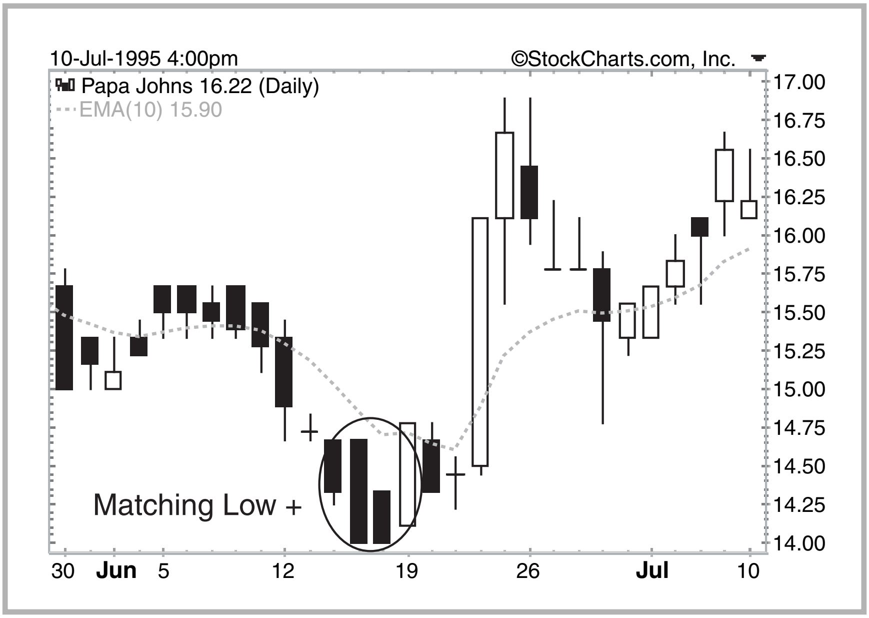
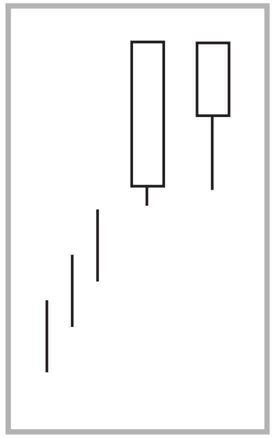



**Figure 3-51**

## MATCHING HIGH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Matching High - | | | | **Type:** | R- | |
| **Japanese Name:** | *niten tenjo* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | | |
| **Frequency (MDaysBP):** | 499 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **% Winners:** | 70 | 66 | 64 | 62 | 61 | 60 | 59 |
| **Avg. % Gain:** | 2.79 | 3.22 | 3.56 | 3.90 | 4.18 | 4.40 | 4.70 |
| **% Losers:** | 30 | 34 | 36 | 38 | 39 | 40 | 41 |
| **Avg. % Loss:** | -2.22 | -3.09 | -3.76 | -4.27 | -4.70 | -5.01 | -5.38 |
| **Net Profit / Net Loss:** | 0.99 | 0.90 | 0.78 | 0.68 | 0.61 | 0.54 | 0.48 |

Figure 3-52



## Commentary

The Matching High pattern is a two-day bearish reversal pattern. It was created to provide a complementary pattern for the Matching Low pattern.

## Rules of Recognition

1. The first day is a long white day that occurs in an uptrend.
2. The second day has the same closing price as the first day.
3. Both days have little or no upper shadow.

## Scenarios and Psychology behind the Pattern

The Matching High pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. The long white day adds to the bullishness already present.

The next day has the same closing price as the first day. Both days have little or no upper shadow. The dominant feature of this pattern is two white days with the same closing price. As such, there has not been any consideration to giving the second day any length of day or length of body requirements (apart from the little or no upper shadow requirement). This pattern indicates that a top has possibly been formed. You would want to see prices open lower the next day and then close below the first day's open as confirmation for this pattern.

## Pattern Flexibility

The first day of the Matching High pattern must have a long body. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

Note: One should consider the two days to have the same closing price as long as the second day's closing price is within one one-thousandth (1⁄1000) of the first day's closing price. So, for example, if the first day closes at 20, the second day is permitted to close between 19.98 and 20.02.

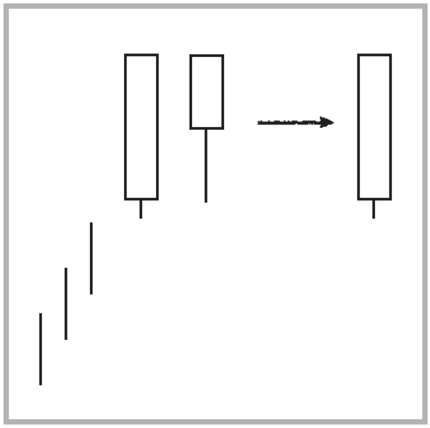
## Pattern Breakdown

The Matching High pattern breaks down into a long white body with a lower shadow and therefore confirmation is required.

## Related Patterns

The Matching High pattern can resemble the Descending Hawk pattern.

Figure 3-53



## Example

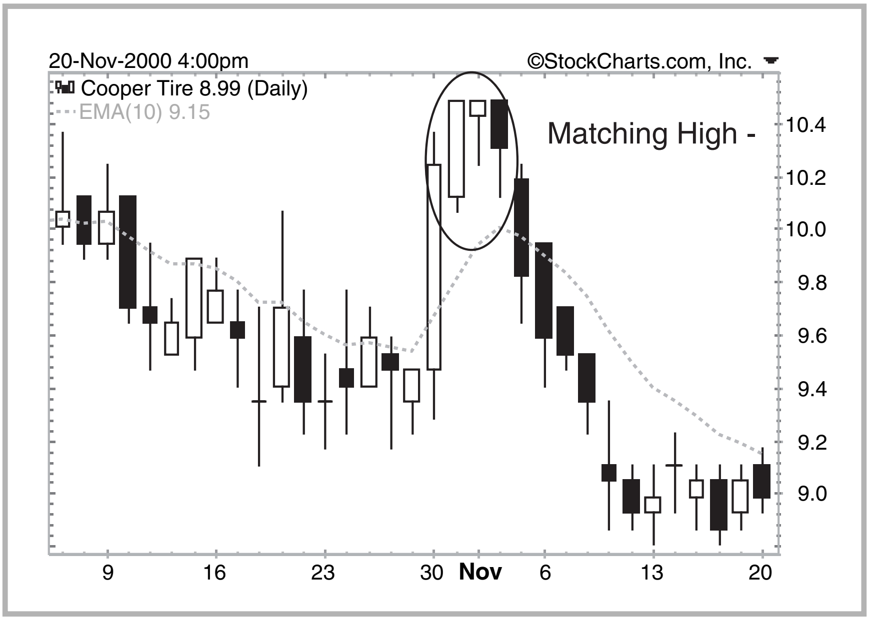



Figure 3-54

## KICKING

| Pattern Name: | Kicking + | | | | Type: | R+ |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *keri ashi* | | | | | | |
| Trend Required: | No | Confirmation: | | | Required | | |
| Frequency (MDaysBP): | 6,189 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 43 | 43 | 44 | 45 | 44 | 45 | 47 |
| **Avg. % Gain:** | 2.91 | 3.74 | 4.47 | 4.75 | 5.09 | 5.41 | 5.80 |
| **% Losers:** | 57 | 57 | 56 | 55 | 56 | 55 | 53 |
| **Avg. % Loss:** | -3.18 | -3.73 | -4.21 | -4.77 | -5.12 | -5.60 | -5.82 |
| **Net Profit / Net Loss:** | -0.49 | -0.50 | -0.37 | -0.49 | -0.56 | -0.61 | -0.39 |

| Pattern Name: | Kicking - | | | | Type: | R- |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *keri ashi* | | | | | | |
| Trend Required: | No | Confirmation: | | | Required | | |
| Frequency (MDaysBP): | 6,819 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 40 | 41 | 41 | 42 | 42 | 42 | 42 |
| **Avg. % Gain:** | 2.39 | 3.22 | 3.70 | 3.97 | 4.42 | 4.83 | 5.40 |
| **% Losers:** | 60 | 59 | 59 | 58 | 58 | 58 | 58 |
| **Avg. % Loss:** | -3.71 | -4.24 | -4.78 | -5.39 | -5.71 | -6.03 | -6.32 |
| **Net Profit / Net Loss:** | -1.07 | -1.04 | -1.17 | -1.36 | -1.41 | -1.39 | -1.37 |

Figure 3-55

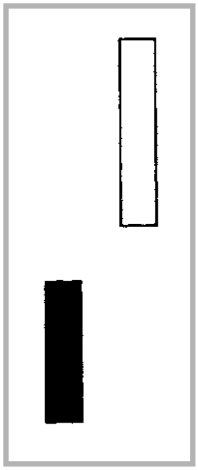
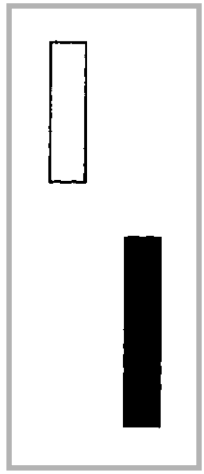


Figure 3-56



## Commentary

The Kicking pattern is similar to the Separating Lines pattern, except that instead of the open prices being equal, a gap occurs. The bullish Kicking pattern is a Black Marubozu followed by a White Marubozu (Figure 3-55). The bearish Kicking pattern is a White Marubozu followed by a Black Marubozu (Figure 3-56). Some Japanese theory says that future movement will be in the direction of the longer side of the two candles, regardless of the price trend. The market direction is not as important with this pattern as it is with most other candle patterns.

## Rules of Recognition

1. A Marubozu of one color is followed by a Marubozu of the opposite color.
2. A gap must occur between the two lines.

### Scenarios and Psychology behind the Pattern

The market has been in a trend when prices gap the next day. The prices never enter into the previous day's range and then close with another gap.

### Pattern Flexibility

This allows no flexibility. If the gap does not exist, a Separating Lines (continuation) pattern will be formed.

### Pattern Breakdown

The bullish Kicking pattern reduces to a long white candle line, which usually is bullish (Figure 3-57). The bearish Kicking pattern reduces to a long black candle line, which is usually bearish (Figure 3-58).

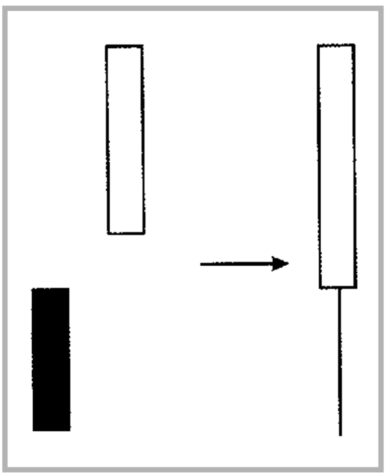


**Figure 3-57**

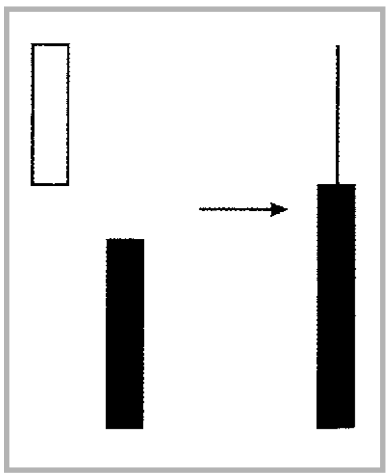


**Figure 3-58**

## Related Patterns

The separating Lines pattern is almost the same, except for the gap and the fact that the Separating Lines is a continuation pattern.

## Example

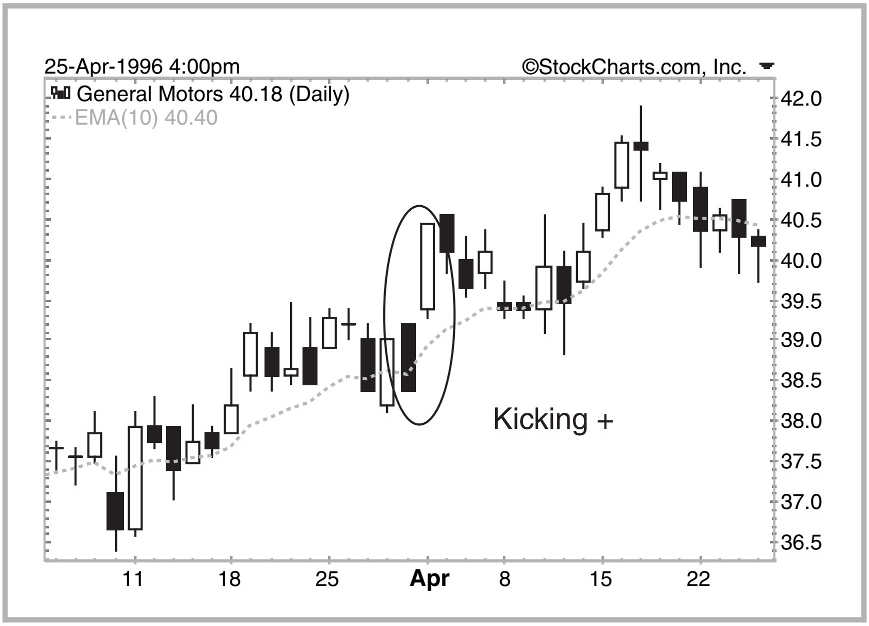



**Figure 3-59**

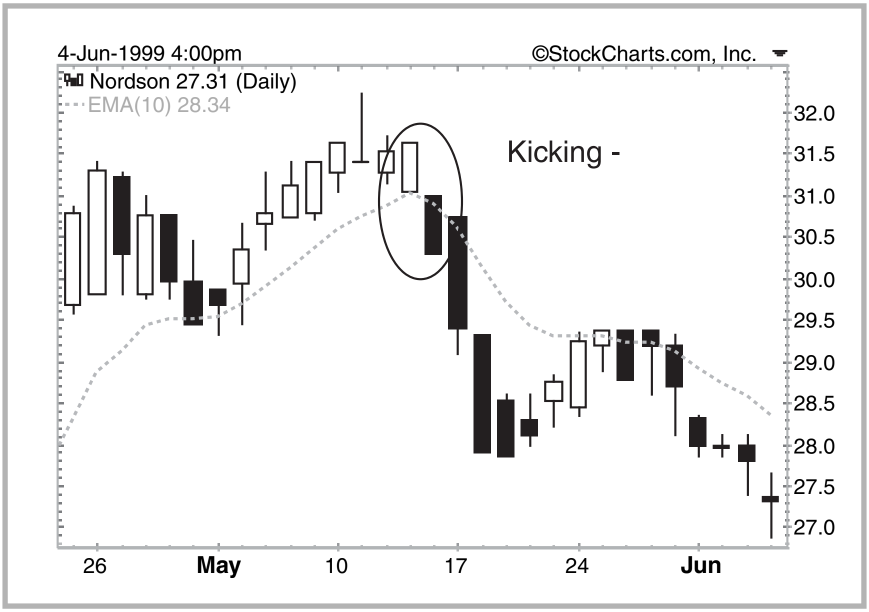
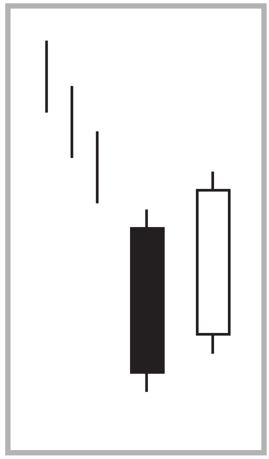



**Figure 3-60**

## ONE WHITE SOLDIER

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | 1 White Soldier + | | | | **Type:** R+ | | |
| **Japanese Name:** | *shiroki heishi* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Suggested | | |
| **Frequency (MDaysBP):** | 355 | | Quite Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 48 | 49 | 49 | 50 | 50 | 50 |
| **Avg. % Gain:** | 2.76 | 3.75 | 4.47 | 5.05 | 5.64 | 6.18 | 6.59 |
| **% Losers:** | 53 | 52 | 51 | 51 | 50 | 50 | 50 |
| **Avg. % Loss:** | -2.61 | -3.50 | -4.04 | -4.52 | -4.99 | -5.44 | -5.87 |
| **Net Profit / Net Loss:** | -0.09 | -0.04 | 0.10 | 0.21 | 0.29 | 0.32 | 0.32 |

Figure 3-61A



## Commentary

The One White Soldier pattern is a two-day bullish reversal pattern. The One White Soldier pattern is based on the Tasuki candlestick line. A Tasuki line occurs when prices open higher than the previous day's close and then close higher than the previous day's high. Tasuki is a sash for holding up one's sleeves.

## Rules of Recognition

1. The One White Soldier pattern starts with a long black day.
2. The second day is a long white day that opens at or above the previous day's close and then closes near the highs of the day, ending above the high of the previous day.

## Scenarios and Psychology behind the Pattern

The One White Soldier pattern starts with a long black day. The mid-point of the range of the first day is below a 10-period moving average. This means that a downtrend has been in place. The long black day adds to the bearishness already present.

The second day is a long white day that opens at or above the previous day's close and then closes near the highs of the day, ending above the high of the previous day.

Emotionally, the downtrend has been damaged. If the following day's prices continue higher, a major reversal of the downtrend has occurred.

## Pattern Flexibility

Both days are long days. A long day occurs when the high-low range is either (1) greater than 1.5% of the midpoint value or (2) greater than .75 times the average of the prior five days' high-low ranges, depending on the method used to determine the length of a day. The high-low range is the difference between a day's high and low. The midpoint value is the point halfway between the day's high and low.

Both days must have long bodies as well. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

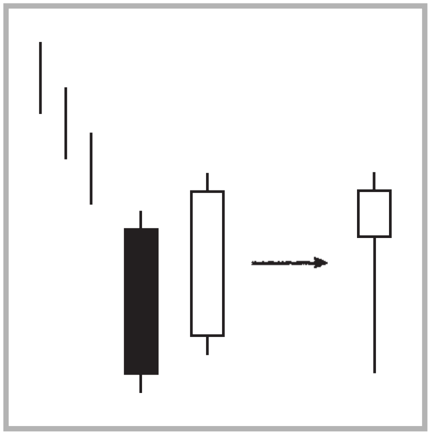
## Pattern Breakdown

The One White Soldier breaks down to a small white body with a long lower shadow (Figure 3-61B). Confirmation is required.

## Related Patterns

The One White Soldier pattern is similar to the Piercing Line, bullish Engulfing, and bullish Harami patterns.

Figure 3-61B



### Example

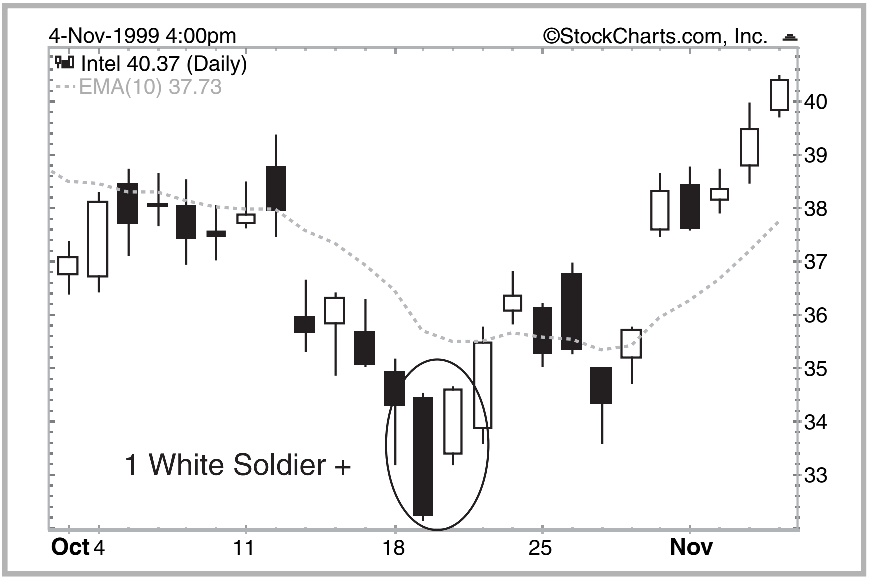



Figure 3-62

## ONE BLACK CROW

| Pattern Name: | 1 Black Crow - | | | | Type: R- | |
|---|---|---|---|---|---|---|
| Japanese Name: | *karasu* | | | | | |
| Trend Required: | Yes | Confirmation: | | | Required | |
| Frequency (MDaysBP): | 451 | Quite Frequent | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 45 | 45 | 46 | 46 | 46 | 46 | 46 |
| Avg. % Gain: | 2.16 | 2.92 | 3.49 | 3.95 | 4.38 | 4.81 | 5.19 |
| % Losers: | 55 | 55 | 54 | 54 | 54 | 54 | 54 |
| Avg. % Loss: | -2.50 | -3.20 | -3.87 | -4.29 | -4.75 | -5.18 | -5.59 |
| Net Profit / Net Loss: | -0.39 | -0.43 | -0.50 | -0.49 | -0.52 | -0.54 | -0.64 |

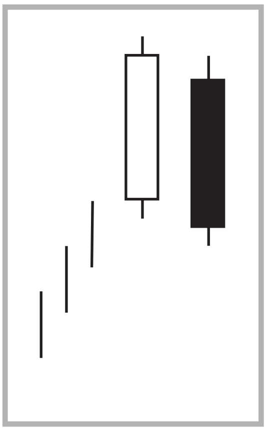


**Figure 3-63**

### Commentary

The One Black Crow pattern is a two-day bearish reversal pattern. The One Black Crow pattern is based on the Tasuki candlestick line. A Tasuki line occurs when prices open lower than the previous day's close and then close lower than the previous day's low. Tasuki is a sash for holding up one's sleeves.

## Rules of Recognition

1. The One Black Crow pattern starts with a long white day.
2. The second day is a long black day that opens at or below the previous day's close and then closes near the lows of the day, ending below the low of the previous day.

## Scenarios and Psychology behind the Pattern

The One Black Crow pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. The long white day adds to the bullishness already present.

The second day is a long black day that opens at or below the previous day's close and then closes near the lows of the day, ending below the low of the previous day. Emotionally, the uptrend has been damaged. If the following day's prices continue lower, a major reversal of the uptrend has occurred.

## Pattern Flexibility

Both days are long days. A long day occurs when the high-low range is either (1) greater than 1.5% of the midpoint value or (2) greater than .75 times the average of the prior five days' high-low ranges, depending on the method used to determine the length of a day. The high-low range is the difference between a day's high and low. The midpoint value is the point halfway between the day's high and low.

Both days must have long bodies as well. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

## Pattern Breakdown

The One Black Crow pattern reduces to a small black body with a tall upper shadow (Figure 3-64). Confirmation is required.

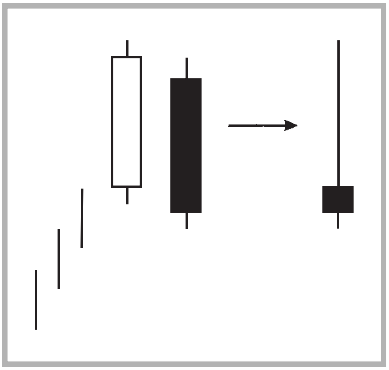


Figure 3-64

## Related Patterns

The One Black Crow pattern is similar to the Dark Cloud Cover, bearish Engulfing, and bearish Harami patterns.

## Example

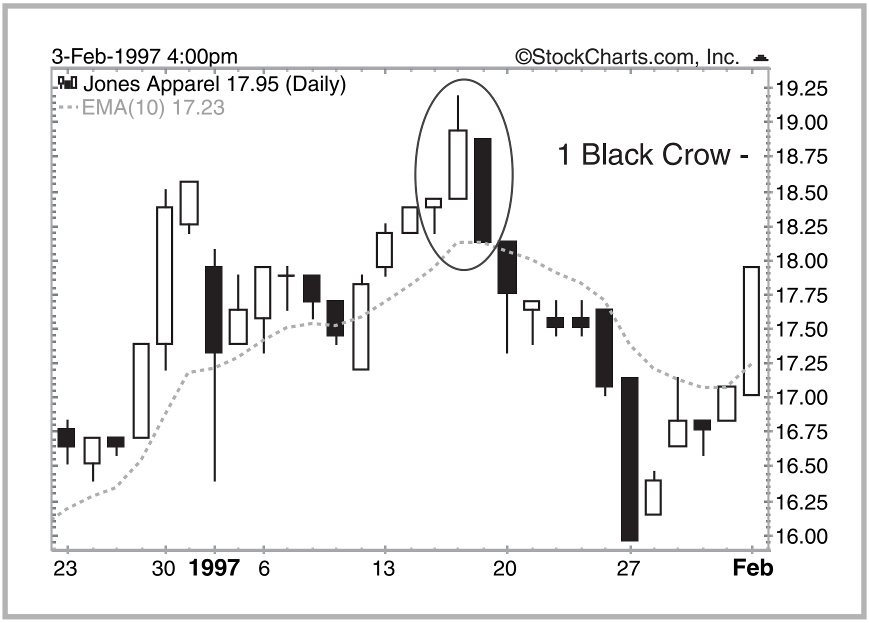



Figure 3-65

# THREE-DAY PATTERNS

## MORNING STAR AND EVENING STAR

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Morning Star + | | | | | **Type:** R+ | |
| **Japanese Name:** | *sankawa ake no myojyo* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Required | | | |
| **Frequency (MDaysBP):** | 2,978 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 45 | 45 | 47 | 46 | 47 | 47 | 48 |
| **Avg. % Gain:** | 2.74 | 3.61 | 4.41 | 5.11 | 5.68 | 6.21 | 6.53 |
| **% Losers:** | 55 | 55 | 53 | 54 | 53 | 53 | 52 |
| **Avg. % Loss:** | -2.92 | -3.70 | -4.42 | -4.96 | -5.36 | -5.82 | -6.15 |
| **Net Profit / Net Loss:** | -0.33 | -0.38 | -0.29 | -0.28 | -0.21 | -0.13 | -0.08 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Evening Star - | | | | | **Type:** R- | |
| **Japanese Name:** | *sankawa yoi no myojyo* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Required | | | |
| **Frequency (MDaysBP):** | 3,146 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 44 | 45 | 46 | 46 | 46 | 45 | 46 |
| **Avg. % Gain:** | 2.24 | 2.93 | 3.45 | 3.91 | 4.21 | 4.64 | 4.94 |
| **% Losers:** | 56 | 55 | 54 | 54 | 54 | 55 | 54 |
| **Avg. % Loss:** | -2.75 | -3.44 | -4.17 | -4.71 | -5.33 | -5.71 | -6.16 |
| **Net Profit / Net Loss:** | -0.48 | -0.55 | -0.63 | -0.74 | -0.92 | -1.02 | -1.07 |

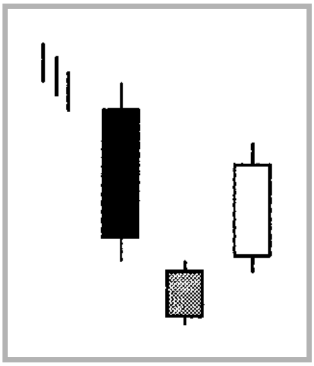


**Figure 3-66**

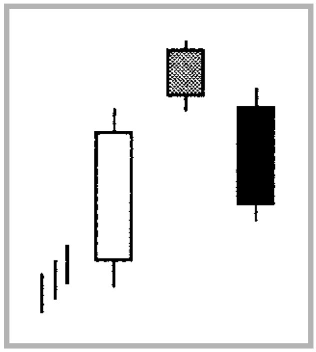


**Figure 3-67**

## Commentary

### *Morning Star*

The Morning Star is a bullish reversal pattern. Its name indicates that it foresees higher prices. It is made of a long black body followed by a small body that gaps lower (Figure 3-66). The third day is a white body that moves into the first day's black body. An ideal Morning Star would have a gap before and after the middle (star) day's body.

### *Evening Star*

The bearish counterpart of the Morning Star is the Evening Star. Because the Evening Star is a bearish pattern, it appears after, or during, an uptrend. The first day is a long white body followed by a star (Figure 3-67). Remember that a star's body gaps away from the previous day's body. The star's smaller body is the first sign of indecision. The third day gaps down and closes even lower, completing this pattern. Like the Morning Star, the Evening Star should have a gap between the first and second bodies and then another gap between the second and third bodies. Some literature does not refer to the second gap.

## Rules of Recognition

1. The first day is always the color that was established by the ensuing trend. That is, an uptrend will yield a long white day for the first day of the Evening Star and a downtrend will yield a black first day of the Morning Star.
2. The second day, the star, is always gapped from the body of the first day. Its color is not important.
3. The third day is always the opposite color of the first day.
4. The first day, and most likely the third day, are considered long days.

## Scenarios and Psychology behind the Pattern

### *Morning Star*

A downtrend has been in place, which is assisted by a long black candlestick. There is little doubt about the downtrend continuing with this type of action. The next day prices gap lower on the open. This small body shows the beginning of indecision. The next day prices gap higher on the open and then close much higher. A significant reversal of trend has occurred.

### *Evening Star*

The scenario of the Evening Star is the exact opposite of the Morning Star.

## Pattern Flexibility

Ideally there is one gap between the bodies of the first candlestick and the star, and a second gap between the bodies of the star and the third candlestick. Some flexibility is possible in the gap between the star and the third day.

If the third candlestick closes deeply into the first candlestick's real body, a much stronger move should ensue, especially if heavy volume occurs on the third day. Some literature likes to see the third day close more than halfway into the body of the first day.

## Pattern Breakdown

The Morning Star reduces to a Paper Umbrella or Hammer line, which fully supports the Morning Star's bullish indication (Figure 3-68). The Evening Star pattern reduces to a Shooting Star line, which is also a bearish line and in full support (Figure 3-69).

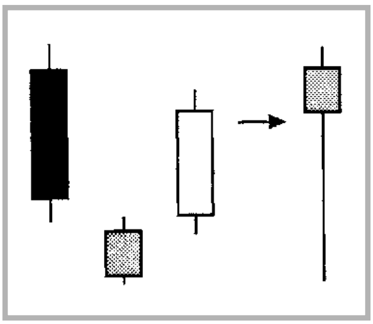


Figure 3-68

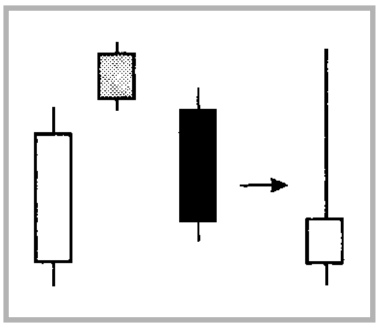


Figure 3-69

## Related Patterns

The next few patterns are all specific versions of the Morning and Evening Starts. They are the Morning and Evening Doji Stars, the Abandoned Baby, and the Tri Star.

## Examples

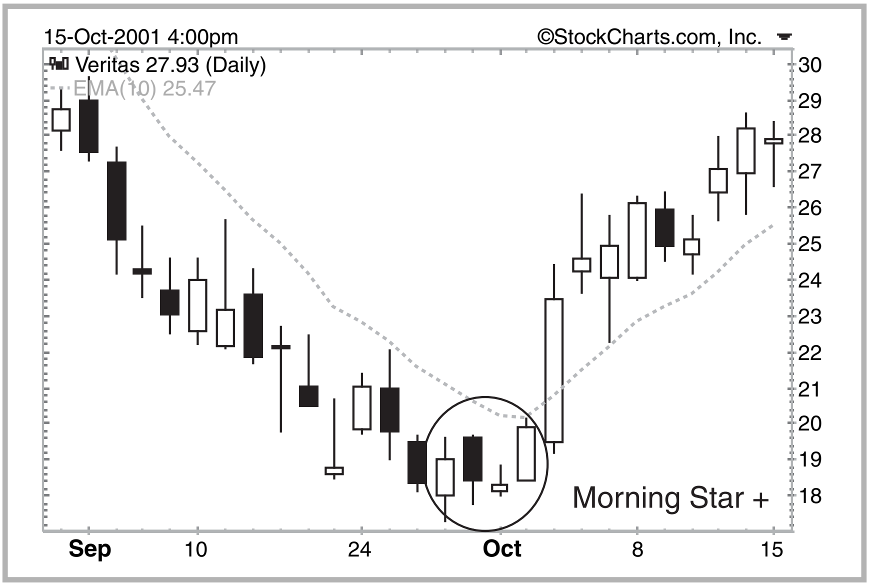



Figure 3-70A

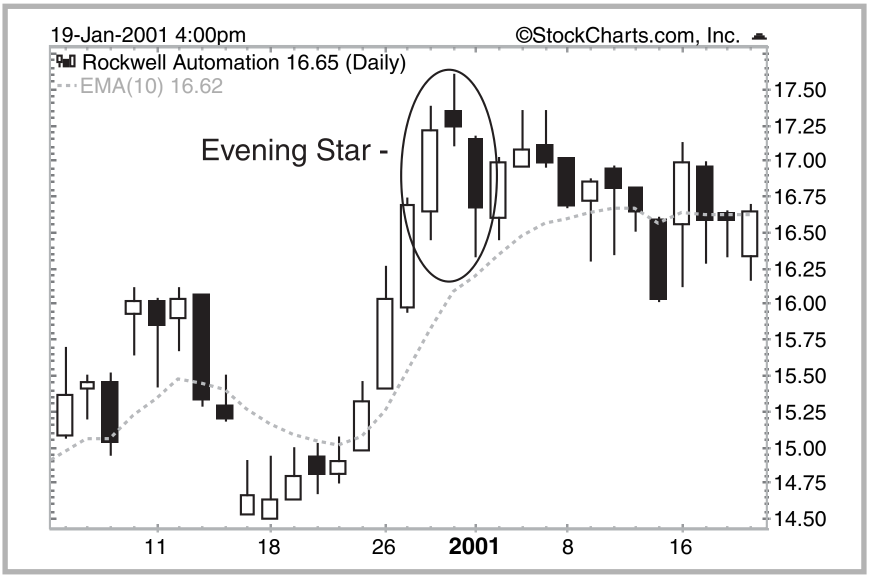



Figure 3-70B

## THE MORNING AND EVENING DOJI STARS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Morning Doji Star + | | | | **Type:** R+ | | |
| **Japanese Name:** | *ake no myojyo doji bike* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | | |
| **Frequency (MDaysBP):** | 6,890 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 46 | 45 | 47 | 49 | 50 | 50 | 50 |
| **Avg. % Gain:** | 2.78 | 3.56 | 4.35 | 4.90 | 5.39 | 6.10 | 6.59 |
| **% Losers:** | 54 | 55 | 53 | 51 | 50 | 50 | 50 |
| **Avg. % Loss:** | -2.57 | -3.43 | -4.16 | -4.71 | -5.32 | -5.79 | -6.01 |
| **Net Profit / Net Loss:** | -0.09 | -0.24 | -0.14 | -0.03 | 0.04 | 0.20 | 0.28 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Evening Doji Star - | | | | **Type:** R- | | |
| **Japanese Name:** | *yoi no myojyo doji bike minami jyuju sei* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 6,772 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 48 | 50 | 50 | 51 | 50 | 48 |
| **Avg. % Gain:** | 2.41 | 3.11 | 3.85 | 4.37 | 4.79 | 5.29 | 5.66 |
| **% Losers:** | 53 | 52 | 50 | 50 | 49 | 50 | 52 |
| **Avg. % Loss:** | -2.42 | -3.21 | -3.89 | -4.47 | -4.96 | -5.83 | -6.39 |
| **Net Profit / Net Loss:** | -0.15 | -0.14 | 0.01 | -0.02 | -0.03 | -0.23 | -0.59 |

Figure 3-71

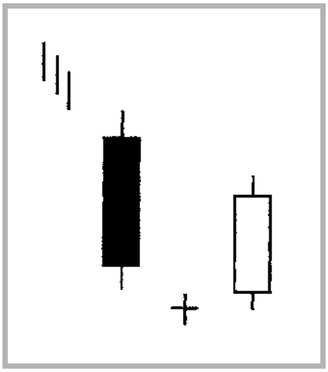
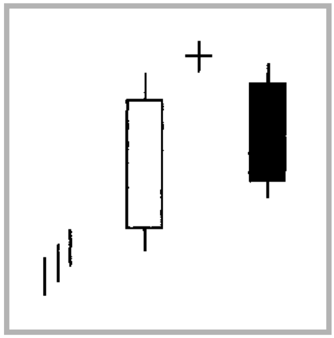


Figure 3-72



## Commentary

Remember from the discussion of the Doji Star that a possible reversal of trend is occurring because of the indecision associated with the Doji. Doji Stars are warnings that the prior trend is probably going to at least change. The day after the Doji should confirm the impending trend reversal. The Morning and Evening Doji star patterns do exactly this.

### *Morning Doji Star*

A downtrending market is in place with a long black candlestick, which is followed by a Doji Star. Just like the regular Morning Star, confirmation on the third day fully supports the reversal of trend. This type of Morning Star, the Morning Doji Star (Figure 3-71), can represent a significant reversal. It is therefore considered more significant than the regular Morning Star pattern.

### *Evening Doji Star*

A Doji Star in an uptrend followed by a long black body that closed well into the first day's white body would confirm a top reversal (Figure 3-72). The regular Evening Star pattern has a small body as its star, whereas the Evening Doji Star has a Doji as its star. The Evening Doji Star is more important because of this Doji. The Evening Doji has also been referred to as the Southern Cross.

## Rules of Recognition

1. Like many reversal patterns, the first day's color should represent the trend of the market.
2. The second day must be a Doji Star (a Doji that gaps).
3. The third day is the opposite color of the first day.

## Scenarios and Psychology behind the Pattern

The psychology behind these patterns is similar to those of the regular Morning and Evening Star patterns, except that the Doji Star is more of a shock to the previous trend and, therefore, more significant.

## Pattern Flexibility

Flexibility may occur in the amount of penetration into the first day's body by the third day. If penetration is greater than 50%, this pattern has a better chance to be successful.

## Pattern Breakdown

The Morning Doji Star reduces to a Hammer pattern (Figure 3-73) and on occasion will reduce to a Dragonfly Doji line. The Evening Doji Star reduces to a Shooting Star line (Figure 3-74) and occasionally to a Gravestone Doji line. The closer the breakdown is to the single Doji lines, the greater the support for the pattern, because the third day closes further into the body of the first day.

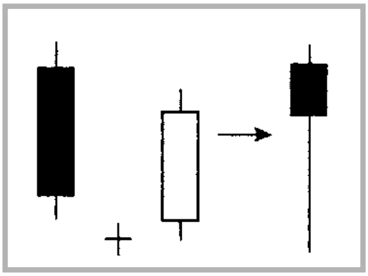


Figure 3-73

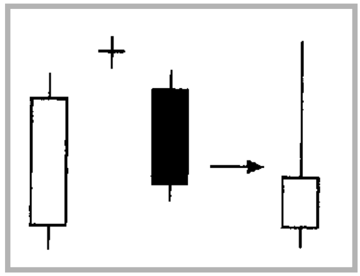


Figure 3-74

## Related Patterns

You should be aware that this pattern starts with the Doji Star. It is the confirmation that is needed with the Doji Star and should not be ignored.

## Examples

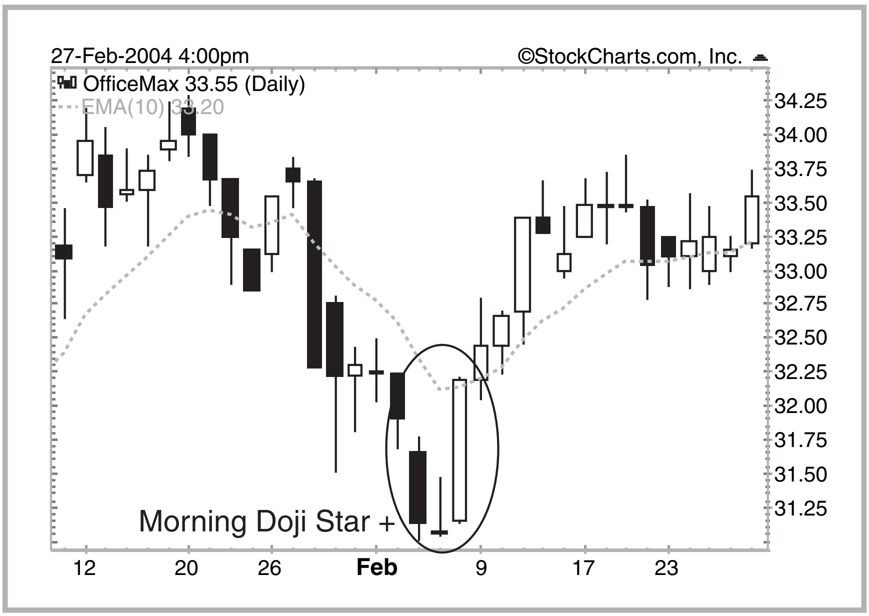



Figure 3-75A

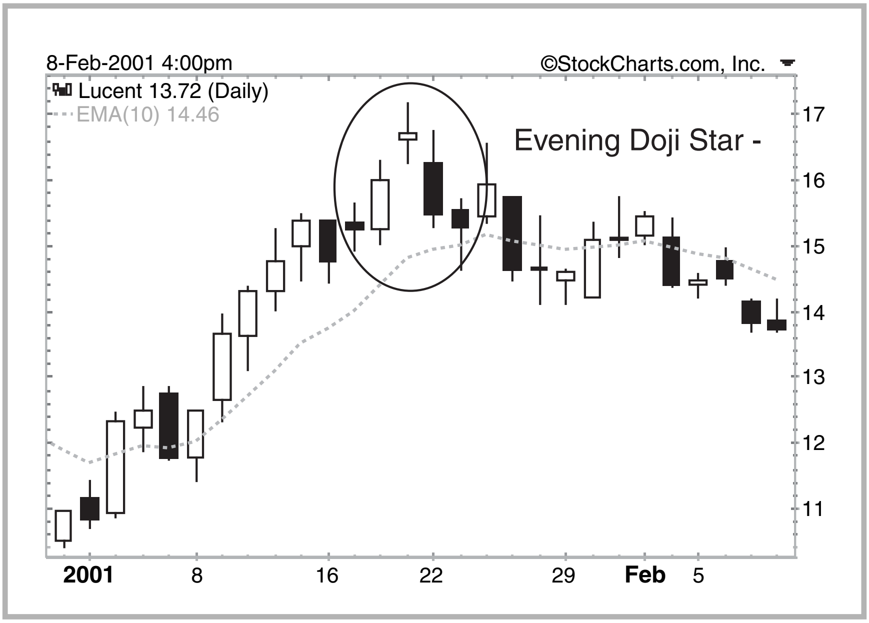



**Figure 3-75B**

## ABANDONED BABY

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Abandoned Baby + | | | | | **Type:** | R+ |
| **Japanese Name:** | *sute go* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Suggested | | |
| **Frequency (MDaysBP):** | 87,952 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 49 | 51 | 53 | 53 | 53 | 50 |
| **Avg. % Gain:** | 2.11 | 3.08 | 3.14 | 3.82 | 4.71 | 5.32 | 6.16 |
| **% Losers:** | 48 | 51 | 49 | 47 | 47 | 47 | 50 |
| **Avg. % Loss:** | -2.32 | -3.64 | -4.19 | -5.15 | -5.43 | -5.89 | -5.91 |
| **Net Profit / Net Loss:** | 0.00 | -0.30 | -0.46 | -0.42 | -0.09 | 0.10 | 0.12 |

| Pattern Name: | Abandoned Baby - | | | Type: R- | | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *sute go* | | | | | | |
| Trend Required: | Yes | Confirmation: | | Required | | | |
| Frequency (MDaysBP): | 89,571 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 48 | 48 | 48 | 48 | 54 | 53 | 54 |
| Avg. % Gain: | 2.27 | 2.84 | 3.67 | 3.39 | 3.53 | 3.74 | 3.91 |
| % Losers: | 52 | 52 | 52 | 52 | 46 | 47 | 46 |
| Avg. % Loss: | -2.38 | -3.66 | -4.40 | -4.62 | -5.69 | -6.37 | -7.25 |
| Net Profit / Net Loss: | -0.14 | -0.50 | -0.51 | -0.77 | -0.71 | -1.02 | -1.16 |

**Figure 3-76**

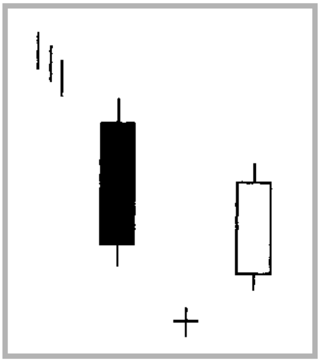
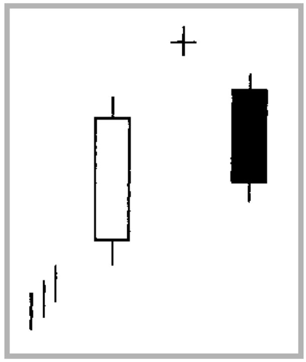


**Figure 3-77**



## Commentary

Another major reversal pattern that is similar in format to the family of Morning and Evening Star patterns is the Abandoned Baby pattern. This pattern is almost exactly the same as the Morning and Evening Doji Star pattern with one important exception. Here, the shadows on the Doji must also gap below the shadows of the first and third days for the Abandoned baby bottom (Figure 3-76). The opposite is true for the Abandoned Baby top (Figure 3-77), the Doji must completely (including shadows) gap above the surrounding days. The Abandoned Baby is quite rare.

## Rules of Recognition

1. The first day should reflect the prior trend.
2. The second day is a Doji whose shadow gaps above or below the previous day's upper or lower shadow.
3. The third day is the opposite color of the first day.
4. The third day gaps in the opposite direction with no shadows overlapping.

## Scenarios and Psychology behind the Pattern

Like most of the three-day star patterns, the scenarios are similar. The primary difference is that the star (second day) can reflect greater deterioration in the prior trend, depending on whether it gaps, is Doji, and so on.

## Pattern Flexibility

Because of the specific parameters used to define this pattern, there is not much room for flexibility. This is a special case of the Morning and Evening Doji Stars, in which the second day is similar to a traditional island reversal day.

## Pattern Breakdown

The breakdown of the Abandoned Baby pattern, both bullish and bearish, are extensions of the Morning and Evening Doji Stars (Figure 3-78 and 3-79). The bullishness or bearishness is further amplified because the long shadow is usually longer than in the previous cases. As before, the more that the third day closes into the first day's body, the closer these breakdowns are to the Dragonfly and Gravestone Doji lines.

Figure 3-78

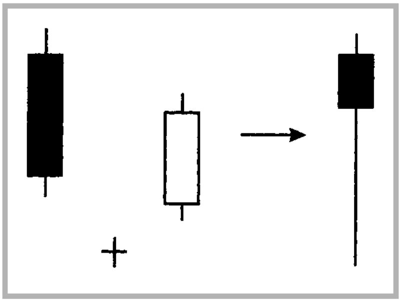
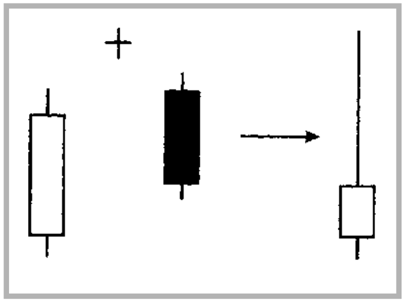


Figure 3-79



## Related Patterns

This is a special case of the Doji Star in that the Doji day gaps from the previous day. This gap includes all shadows, not just the body. The third day gaps also, but in the opposite direction.

## Examples

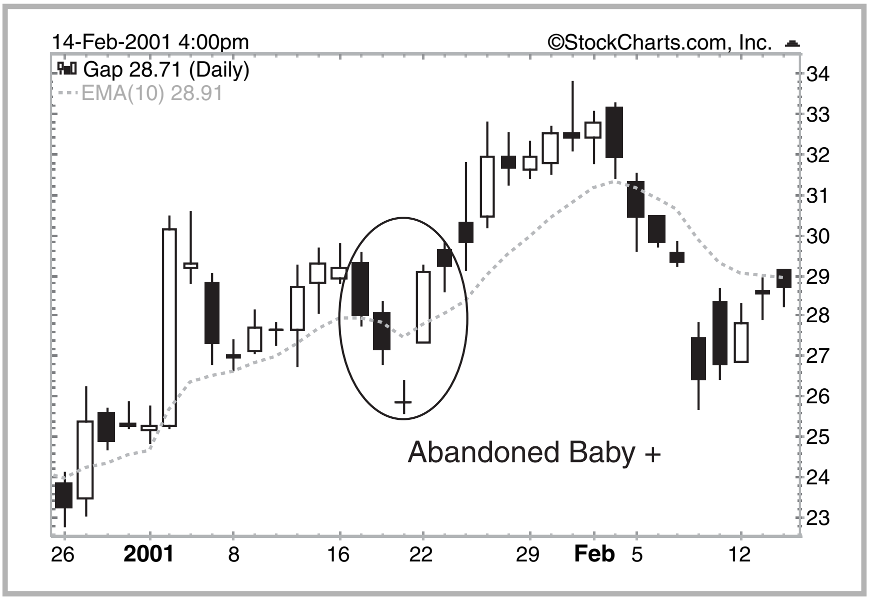



Figure 3-80A

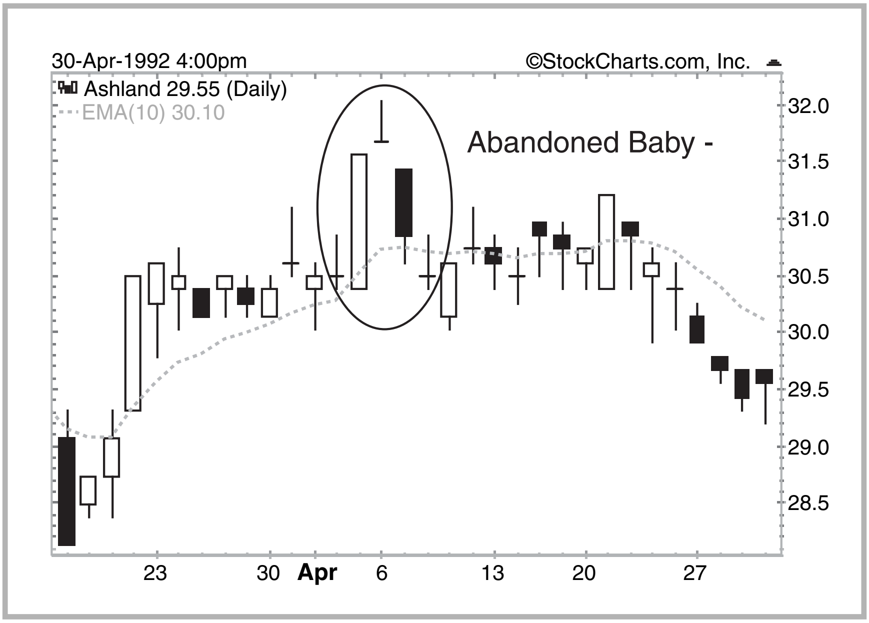



**Figure 3-80B**

## TRI STAR

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Tri Star + | | | | | **Type:** | R+ |
| **Japanese Name:** | *santen boshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Suggested | | | |
| **Frequency (MDaysBP):** | 4,993 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 43 | 45 | 47 | 47 | 48 | 48 | 48 |
| **Avg. % Gain:** | 2.70 | 3.50 | 4.29 | 4.96 | 5.68 | 6.29 | 6.63 |
| **% Losers:** | 57 | 55 | 53 | 53 | 52 | 52 | 52 |
| **Avg. % Loss:** | -2.61 | -3.26 | -3.78 | -4.13 | -4.61 | -4.89 | -5.24 |
| **Net Profit / Net Loss:** | -0.26 | -0.16 | -0.01 | 0.16 | 0.29 | 0.46 | 0.44 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Tri Star - | | | | | **Type:** R- | |
| **Japanese Name:** | *santen boshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 5,014 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 44 | 45 | 47 | 46 | 47 | 47 | 47 |
| **Avg. % Gain:** | 2.12 | 2.74 | 3.25 | 3.65 | 3.97 | 4.31 | 4.59 |
| **% Losers:** | 56 | 55 | 53 | 54 | 53 | 53 | 53 |
| **Avg. % Loss:** | -2.15 | -2.84 | -3.52 | -4.01 | -4.39 | -4.85 | -5.14 |
| **Net Profit / Net Loss:** | -0.22 | -0.25 | -0.32 | -0.40 | -0.44 | -0.45 | -0.49 |

**Figure 3-81**

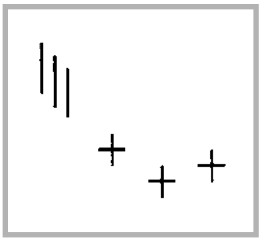
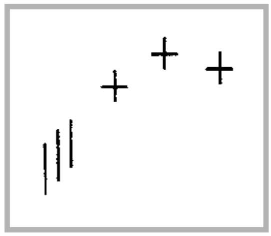


**Figure 3-82**



## Commentary

The Tri Star pattern (Figures 3-81 and 3-82) was developed by Steve Nison. It is made up of three Doji days with the middle Doji day being a star. This pattern is extremely rare, but when it occurs should not be ignored.

## Rules of Recognition

1. All three days are Doji.
2. The second day gaps above or below the first and third day.

## Scenarios and Psychology behind the Pattern

The market has probably been in an uptrend or downtrend for a long time. With the trend starting to show weakness, bodies probably are becoming smaller. The first Doji would cause considerable concern. The second Doji would indicate that there was no direction left in the market. And finally, the third Doji would put the final nail in the coffin of the trend. Because this indicates entirely too much indecision, everyone with any conviction would be reversing positions.

### Pattern Flexibility

Be careful with this one. Because the Tri Star is so rare, you should probably be suspect of the data used in its calculation. If the middle Doji gap includes the shadows, it would be even more significant.

### Pattern Breakdown

The Tri Star patterns break down into Spinning Tops, which are indicative of the market indecision (Figure 3-83 and 3-84). This is somewhat of a conflict with the Tri Star pattern and supports the notion that because this pattern is so rare, it should be viewed with some skepticism.

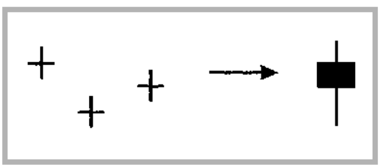


**Figure 3-83**

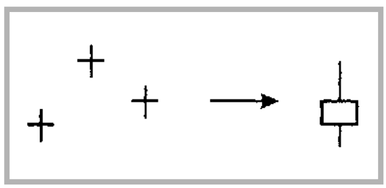


**Figure 3-84**

### Related Patterns

Based on the previous discussions, you can see what a rare pattern this is.

## Examples

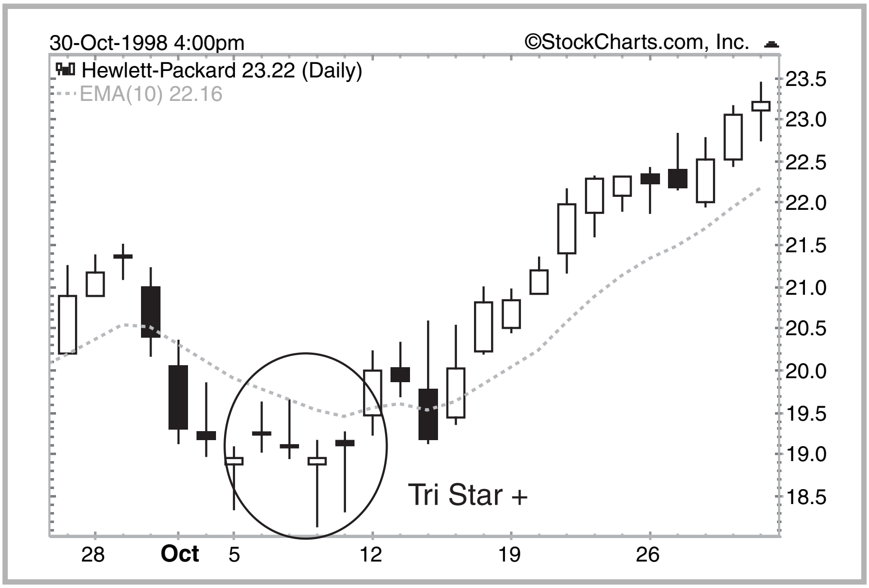



**Figure 3-85A**

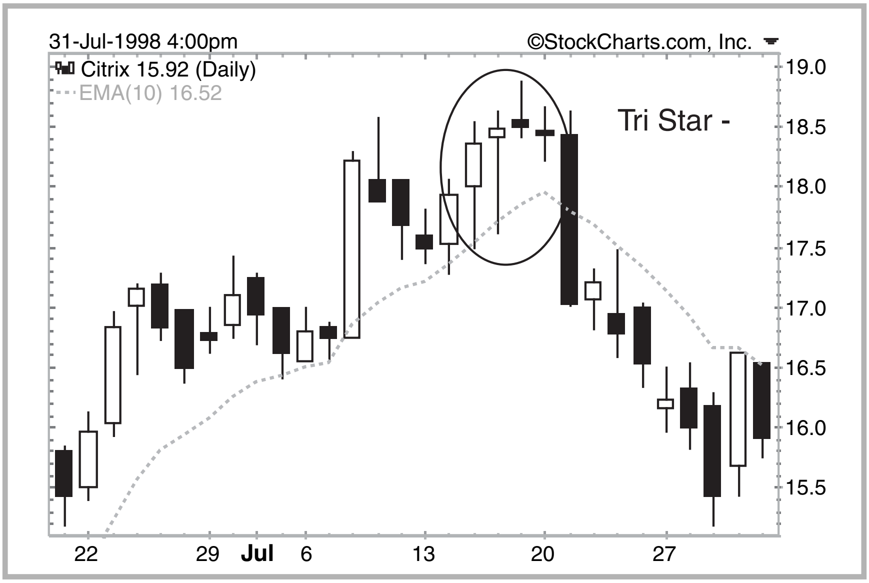



**Figure 3-85B**

## UPSIDE GAP TWO CROWS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Upside Gap 2 Crows - | | | | **Type:** R- | | |
| **Japanese Name:** | *shita banare niwa garasu* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 317,391 | Extremely Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 44 | 45 | 46 | 42 | 43 | 44 | 48 |
| **Avg. % Gain:** | 2.24 | 2.20 | 3.03 | 4.00 | 4.05 | 3.24 | 3.59 |
| **% Losers:** | 56 | 55 | 54 | 58 | 57 | 56 | 52 |
| **Avg. % Loss:** | -1.73 | -2.73 | -3.53 | -4.39 | -4.61 | -4.68 | -6.39 |
| **Net Profit / Net Loss:** | 0.03 | -0.47 | -0.53 | -0.83 | -0.85 | -1.13 | -1.62 |

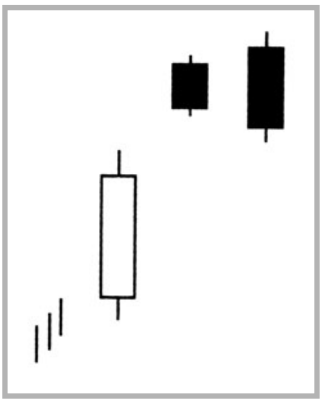


**Figure 3-86**

### Commentary

This pattern only occurs in an uptrend. As with most bearish reversal patterns, it begins with a white body candlestick. The gap referred to in the name of this pattern is the gap between, not only the first and second days, but also the first and third days. The second and third days are black, which is where the two crows originate.

The third day (second black day) should open higher and then close lower than the close of the second day. The third day, even though closing lower than the second day, still is gapped above the first day. Simply said, the second black day engulfs the first black day.

## Rules of Recognition

1. An uptrend continues with a long white day.
2. An upward gapping black day is formed after the white day.
3. A second black day opens above the first black day and closes below the body of the first black day. Its body engulfs the first black day.
4. The close of the second black day is still above the close of the long white day.

## Scenarios and Psychology behind the Pattern

Like the beginning of most bearish reversal patterns, a white body day occurs in an uptrend. The next day opens with a higher gap, fails to rally, and closes lower, forming a black day. This is not too worrisome because it still did not get lower than the first day's close. On the third day prices again gap to a higher open and then drop to close lower than the previous day's close. This closing price, however, is still above the close of the white first day. The bullishness is bound to subside. How can you have two successively lower closes and still be a raging bull?

## Pattern Flexibility

The Upside Gap Two Crows pattern is fairly rigid. If the third day (second black day) were to close into the white day's body, the pattern would become a Two Crows pattern (discussed later in this chapter).

## Pattern Breakdown

The Upside Gap Two Crows pattern reduces to a candle line whose white body is slightly longer than the first day's white body and has a long upper shadow (Figure 3-87). The fact that this is not exactly a bearish candle line suggests that some further confirmation is required before acting on this pattern.

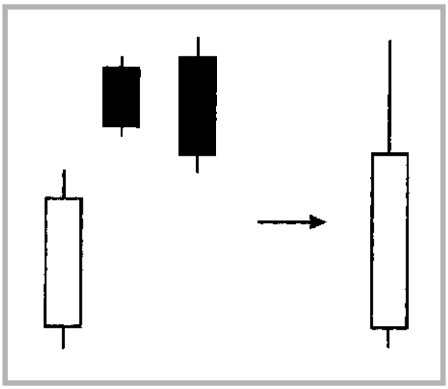


**Figure 3-87**

## Related Patterns

A failure of the third day's black body to open slightly below the second day's open and remain above the first day's body could lead to this pattern's becoming a Mat Hold continuation pattern. The Mat Hold is a bullish continuation pattern discussed in the next chapter. Also, the first two days of this pattern could become an Evening Star, depending upon what happens the third day.

### Example

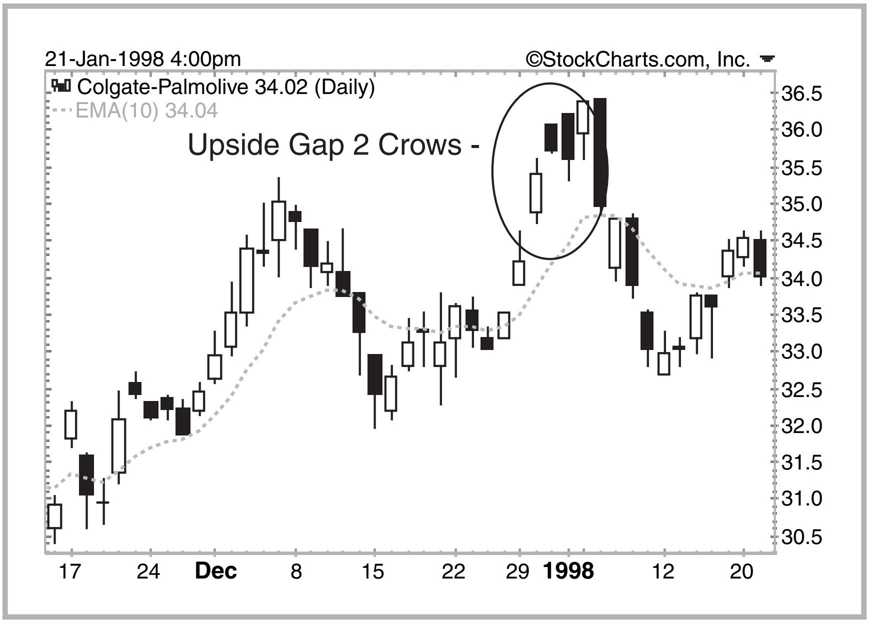



**Figure 3-88**

## DOWNSIDE GAP TWO RABBITS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Downside Gap 2 Rabbits + | | | | **Type:** R+ | | |
| **Japanese Name:** | *shita banare nihiki usagi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | No | | | |
| **Frequency (MDaysBP):** | 442,424 | Extremely Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 67 | 73 | 71 | 59 | 64 | 58 | 55 |
| **Avg. % Gain:** | 2.31 | 3.43 | 3.21 | 3.86 | 4.38 | 5.86 | 6.56 |
| **% Losers:** | 33 | 27 | 29 | 41 | 36 | 42 | 45 |
| **Avg. % Loss:** | -2.65 | -2.71 | -3.60 | -4.75 | -4.96 | -5.42 | -5.05 |
| **Net Profit / Net Loss:** | 0.60 | 1.76 | 1.16 | 0.35 | 0.98 | 1.07 | 1.28 |

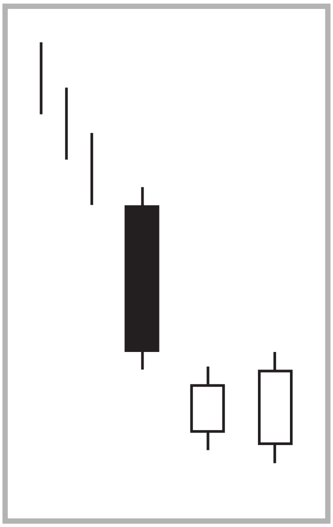


**Figure 3-89**

## Commentary

The Downside Gap Two Rabbits pattern is a three-day bullish reversal pattern. The downside gap refers to the gap between the white real body of the second day and the black real body of the first day. The last two days' white candlesticks represent two white rabbits ready to jump up out of their burrow.

Note: The Downside Gap Two Rabbits pattern is rare.

## Rules of Recognition

1. The pattern begins with a long black day that occurs during a downtrend.
2. The second day is a downward gapping white day.

3. The third day is also a white day that opens below the bottom and then closes above the top of the previous white day.

## Scenarios and Psychology behind the Pattern

The Downside Gap Two Rabbits pattern starts with a long black day. The midpoint of the range of the first day is below a 10-period moving average. This means that a downtrend has been in place. The long black day adds to the bearishness already present.

The next day opens lower with a gap. Prices rise, however, and the day forms a white candlestick. The bears are not shaken by this day because the close of the white day is still below the close of the first day. Although the third day opens way down, it rallies throughout the day and closes above the previous day's close. The strength and continuation of the downtrend has been put into question by these two consecutive white days.

## Pattern Flexibility

The body of the third day must completely engulf the second day's body. Additionally, the third day's high-low range completely engulfs the second day's high-low range.

All three days must also have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range. Although the body of the second day may be relatively small, it is still a long body in relation to its high-low range.

For this pattern, it is strongly recommended that the third day close below the close of the first day. This leaves the gap created by the first and second days still unfilled.

Note: This also requires that the gap between the real bodies of the first and second days be greater than 10% of the high-low range of the first day.

## Pattern Breakdown

The Downside Gap Two Rabbits pattern reduces to a long black candle line and is not representative of this pattern's reversal status. Confirmation is definitely required.

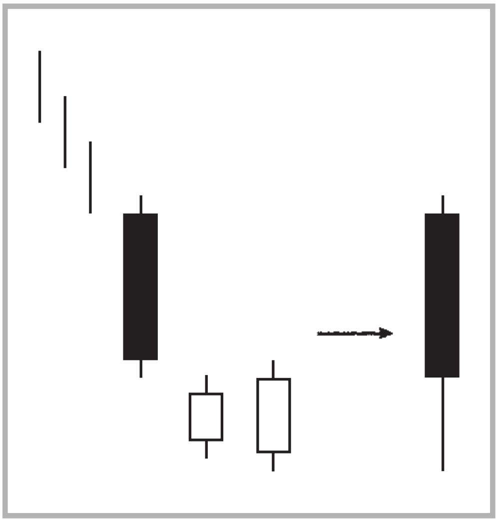


**Figure 3-90**

## Related Patterns

The Downside Gap Two Rabbits pattern is similar to the Two Rabbits pattern.

## Example

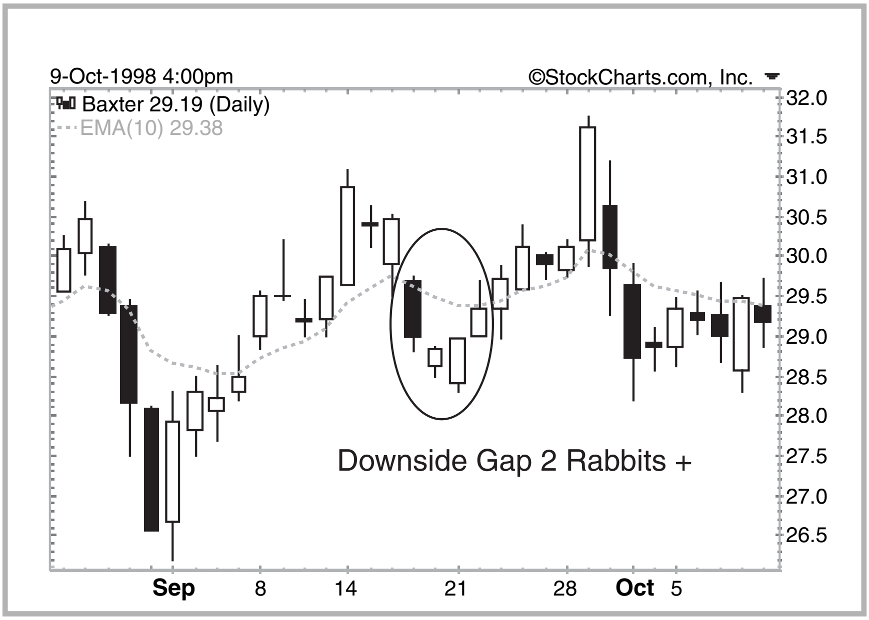



**Figure 3-91**

## UNIQUE THREE RIVER BOTTOM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Unique 3 River Bottom + | | | | | **Type:** R+ | |
| **Japanese Name:** | *sankawa soko zukae* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | Required | | | | |
| **Frequency (MDaysBP):** | 405,556 Extremely Rare | | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 55 | 48 | 51 | 44 | 42 | 50 | 53 |
| **Avg. % Gain:** | 1.77 | 3.11 | 3.50 | 5.41 | 7.92 | 5.52 | 5.77 |
| **% Losers:** | 45 | 52 | 49 | 56 | 58 | 50 | 47 |
| **Avg. % Loss:** | -2.01 | -3.10 | -6.52 | -5.96 | -6.83 | -7.01 | -7.67 |
| **Net Profit / Net Loss:** | 0.05 | -0.08 | -1.33 | -0.91 | -0.69 | -0.75 | -0.57 |

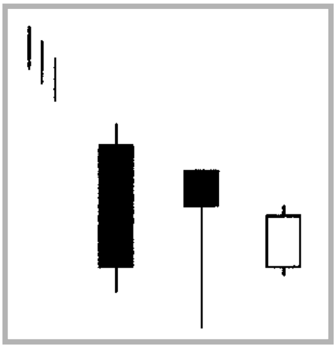


**Figure 3-92**

## Commentary

As demonstrated by Figure 3-92, the Unique Three River Bottom is a pattern somewhat like the Morning Star. The trend is down and a long black real body is formed. The next day opens higher, trades at a new low, then closes near the high, producing a small black body. The third day opens lower, but not lower than the low that was made on the second day. A small white body is formed on the third day, which closes below the close of the second day.

Note: The Unique Three River Bottom is extremely rare.

## Rules of Recognition

1. The first day is a long black day.
2. The second day is a Harami day, but the body is also black.
3. The second day has a lower shadow that sets a new low.
4. The third day is a short white day that is below the middle day.

## Scenarios and Psychology behind the Pattern

A falling market produces a long black day. The next day opens higher, but the bearish strength causes a new low to be set. A substantial rally ensues in which the strength of the bears is in question. This indecision and lack of stability is enforced when the third day opens lower. Stability arrives with a small white body on the third day. If, on the fourth day, price rises to new highs, a reversal of trend has been confirmed.

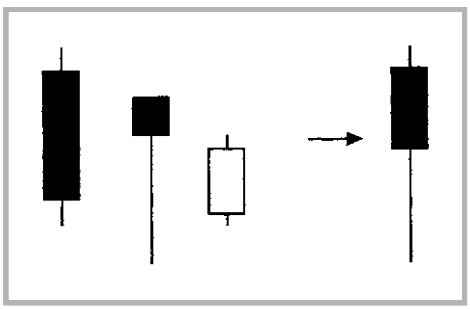
### Pattern Flexibility

Because this is such an unusual and precise pattern, there is not much flexibility. If the lower shadow on the second day were quite long, the greater potential for reversal would be more likely. In some literature, the second day resembles a Hammer line. Like many reversal patterns, if volume supports the reversal, the success is likely to be greater.

### Pattern Breakdown

The Unique Three River Bottom pattern reduces to a single line that most likely is a Hammer line (Figure 3-93). The lower shadow must be at least twice as long as the body to be a Hammer, which in this case, is quite possible because of the long lower shadow on the second day. The Hammer fully supports the bullishness of the Unique Three River Bottom pattern.

**Figure 3-93**



## Related Patterns

This pattern is a takeoff of the Morning Star, but doesn't look anything like it. Its appearance in Japanese literature is part of the Sakata Method (see Chapter 5).

## Example

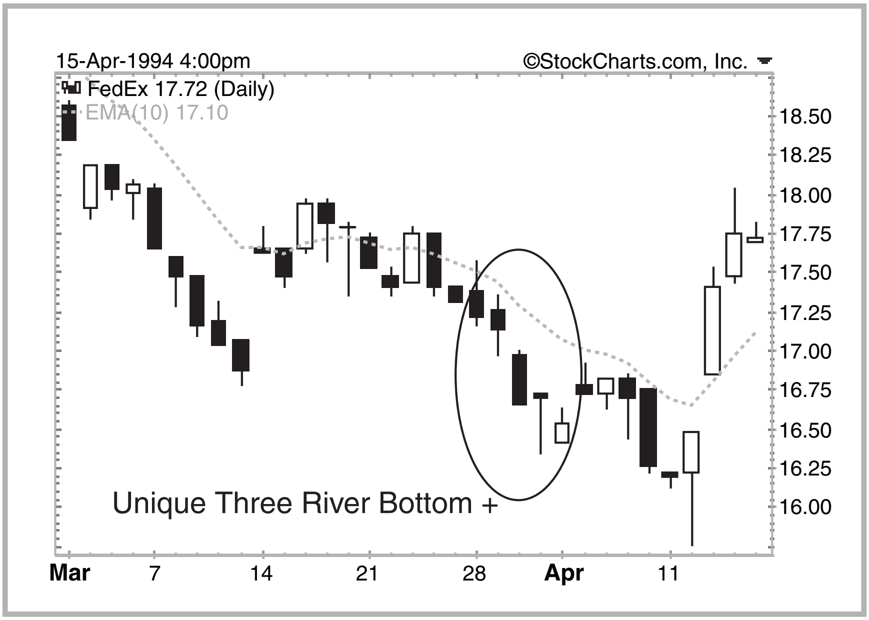


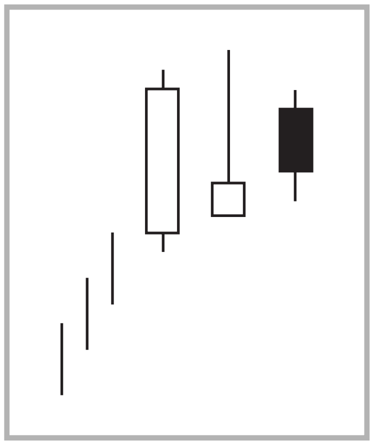

**Figure 3-94**

## UNIQUE THREE MOUNTAIN TOP

| Pattern Name: | | Unique 3 Mountain Top - | | | Type: | R- |
|---|---|---|---|---|---|---|
| Japanese Name: | | *san yama no tenjo* | | | | |
| Trend Required: | | Yes | Confirmation: | | Required | |
| Frequency (MDaysBP): | | 429,412 | Extremely Rare | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 41 | 47 | 38 | 45 | 45 | 45 | 38 |
| Avg. % Gain: | 1.00 | 1.99 | 1.90 | 1.95 | 2.31 | 4.22 | 4.17 |
| % Losers: | 59 | 53 | 62 | 55 | 55 | 55 | 62 |
| Avg. % Loss: | -2.58 | -4.45 | -4.06 | -5.88 | -6.47 | -9.16 | -8.81 |
| Net Profit / Net Loss: | -1.06 | -1.35 | -1.78 | -2.25 | -2.41 | -2.99 | -3.85 |

**Figure 3-95**



### Commentary

The Unique Three Mountain Top pattern is a three-day bearish reversal pattern. It was created as the bearish counterpart to the Unique Three River Bottom pattern.

Note: Because of the many definitional requirements of this pattern, it is an extremely rare pattern.

## Rules of Recognition

1. The first day is a long white day that occurs during an uptrend.
2. The next day opens lower, rallies to make a new high, but then trades down to close near the low of the day, thereby producing a small white body with a long upper shadow.
3. The third day opens higher, but not higher than the high that was made on the second day.
4. A relatively small black body is formed on the third day, which closes above the close of the second day.

## Scenarios and Psychology behind the Pattern

The Unique Three Mountain Top pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. The long white day adds to the bullishness already present.

The next day opens lower, but the bullish strength causes a new high to be made. A substantial decline then ensues in which the strength of the bulls is called into question. This indecision and lack of stability is enforced when the third day opens higher. Stability arrives with a small black body on the third day. If, on the fourth day, prices drop to new lows, a reversal of the trend has been confirmed.

## Pattern Flexibility

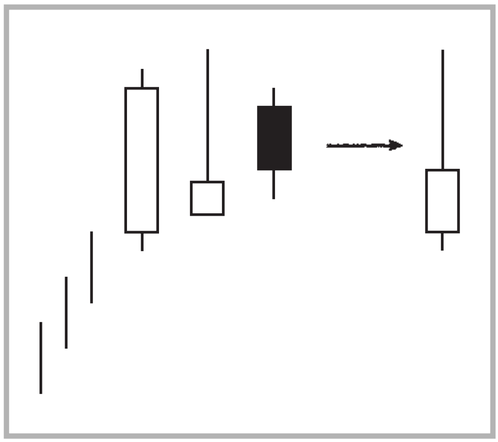
It requires that the body of the second day be less than 27% of the high-low range. This is the same body size requirement as for the Shooting Star pattern. In fact, the second day will often resemble a Shooting Star line.

The first and third days have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range. Do not confuse a long body requirement with a long day requirement. Although the third day's body is relatively small, it is still a long body when compared to its high-low range.

## Pattern Breakdown

The Unique Three Mountain Top reduces to a small white body with a long upper shadow. This is does not fully support the bearish reversal and confirmation is suggested.

**Figure 3-96**



## Example

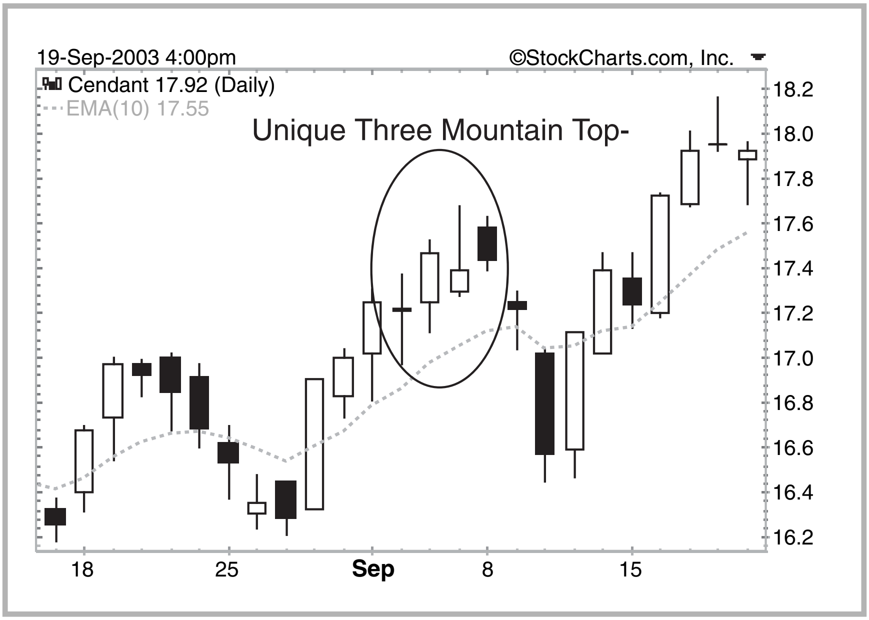
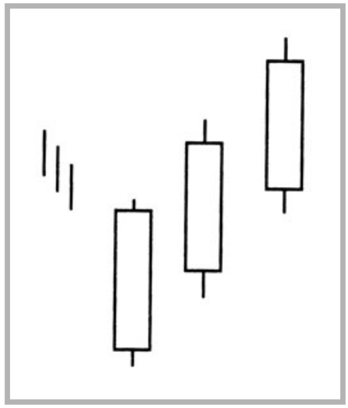



**Figure 3-97**

## THREE WHITE SOLDIERS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | 3 White Soldiers + | | | | **Type:** R+ | | |
| **Japanese Name:** | *aka sanpei* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | No | | |
| **Frequency (MDaysBP):** | 2,888 | | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 51 | 52 | 52 | 52 | 52 | 51 |
| **Avg. % Gain:** | 2.42 | 3.38 | 4.05 | 4.63 | 5.14 | 5.54 | 5.95 |
| **% Losers:** | 48 | 49 | 48 | 48 | 48 | 48 | 49 |
| **Avg. % Loss:** | -2.13 | -3.00 | -3.66 | -4.27 | -4.86 | -5.35 | -5.79 |
| **Net Profit / Net Loss:** | 0.25 | 0.27 | 0.33 | 0.34 | 0.31 | 0.27 | 0.22 |

Figure 3-98



## Commentary

The Three White Soldiers pattern is a vital part of the Sakata Method described in Chapter 5. It shows a series of long white candlesticks that progressively close at higher prices. It is also best if prices open in the middle of the previous day's range (body). This stair-step action is quite bullish and shows the downtrend has abruptly ended.

## Rules of Recognition

1. Three consecutive long white lines occur, each with a higher close.
2. Each should open within the previous body.
3. Each should close at or near the high for the day.

## Scenarios and Psychology behind the Pattern

The Three White Soldiers pattern occurs in a downtrend and is representative of a strong reversal in the market. Each day opens lower but then closes to a new short-term high. This type of price action is very bullish and should never be ignored.

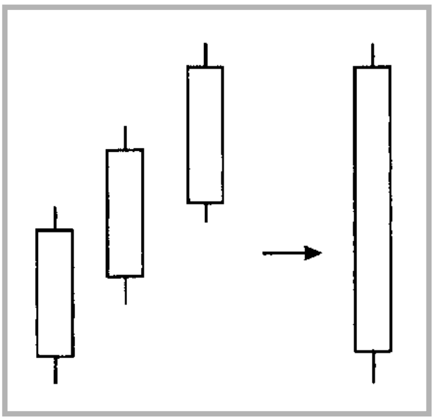
## Pattern Flexibility

The opening prices of the second and third days can be anywhere within the previous body. However, it is better to see the open above the midpoint of the previous day's body. Keep in mind that when a day opens for trading, some selling has to exist to open below the previous close. This suggests that a healthy rise is always accompanied by some selling.

## Pattern Breakdown

The Three White Soldiers pattern reduces to a very bullish long white candle line (Figure 3-99). This breakdown is in full support of the pattern, which makes confirmation unnecessary.

**Figure 3-99**



## Related Patterns

See Advanced Block and Deliberation.

## Examples

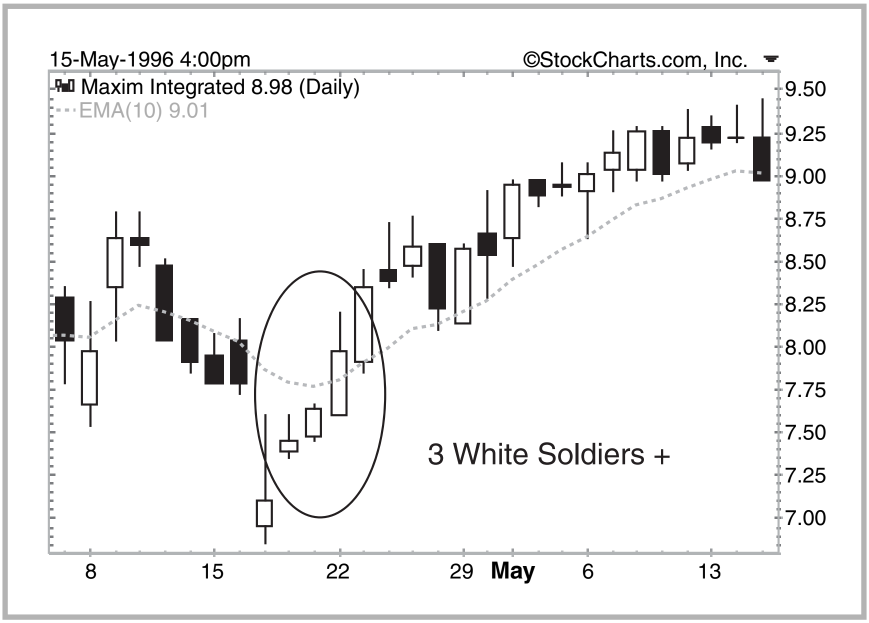



**Figure 3-100**

## THREE BLACK CROWS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | 3 Black Crows - | | | | **Type:** R- | | |
| **Japanese Name:** | *sanba garasu* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 2,154 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 49 | 48 | 48 | 48 | 47 | 47 | 46 |
| **Avg. % Gain:** | 2.33 | 3.09 | 3.78 | 4.36 | 4.91 | 5.19 | 5.64 |
| **% Losers:** | 51 | 52 | 52 | 52 | 53 | 53 | 54 |
| **Avg. % Loss:** | -2.56 | -3.67 | -4.46 | -5.14 | -5.75 | -6.22 | -6.80 |
| **Net Profit / Net Loss:** | -0.17 | -0.42 | -0.51 | -0.58 | -0.72 | -0.86 | -1.04 |

**Figure 3-101**

## Commentary

The Three Black Crows is the counterpart of the Three White Soldiers pattern. Occurring during an uptrend, three long black days are stair-stepping downward. "Bad news has wings," an old Japanese expression, easily fits this pattern. Each day opens slightly higher than the previous day's close, but then drops to a new closing low. When this occurs three times, a clear message of trend reversal has been sent. Be careful that this downward progression does not get overextended. That would surely cause some bottom picking from the eternal bulls.

## Rules of Recognition

1. Three consecutive long black days occur.
2. Each day closes at a new low.
3. Each day opens within the body of the previous day.
4. Each day closes at or neat its lows.

## Scenarios and Psychology behind the Pattern

The market is either approaching a top or has been at a high level for some time. A decisive trend move to the downside is made with a long black day. The next two days are accompanied by further erosion in prices caused by much selling and profit taking. This type of price actions has to take its toll on the bullish mentality.

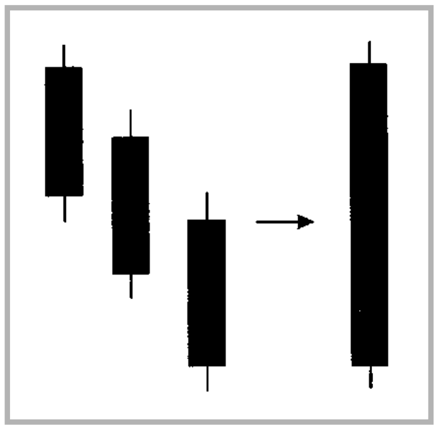
## Pattern Flexibility

It would be good to see the real body of the first candlestick of the three Black Crows under the prior white day's high. This would accelerate the bearishness of this pattern.

## Pattern Breakdown

The Three Black Crows pattern reduces to a long black candlestick, which fully supports this pattern's bearishness (Figure 3-102).

**Figure 3-102**



## Related Patterns

A more rigid version of this pattern is the Identical Three Crows (see the following pattern).

## Example

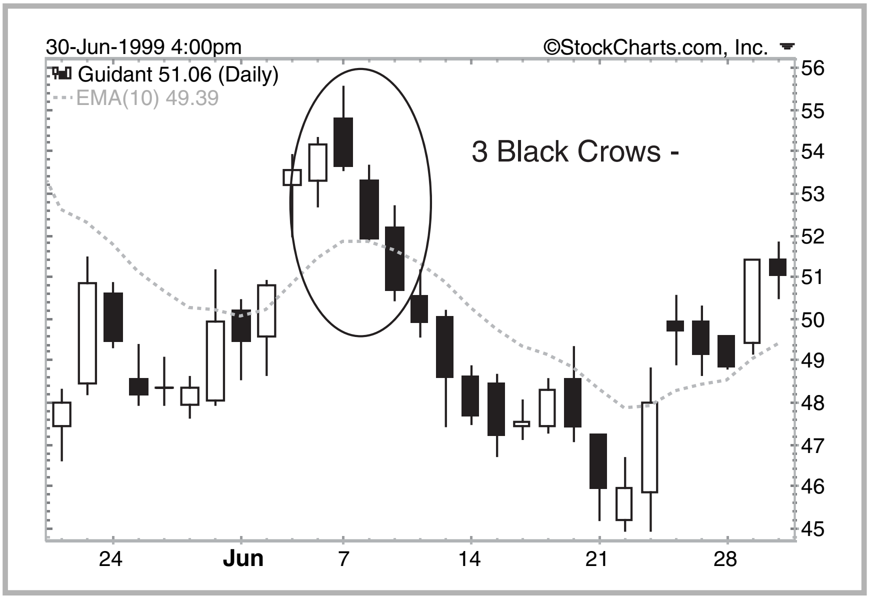
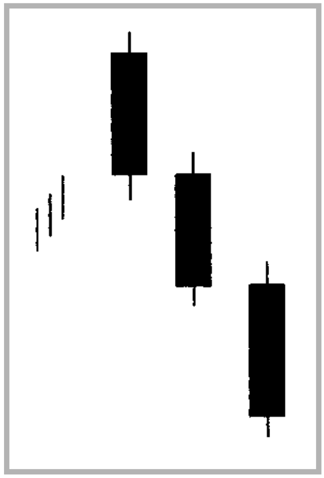



**Figure 3-103**

## IDENTICAL THREE CROWS

*(doji samba garasu)*
Bearish reversal pattern.
No confirmation is required.

**Figure 3-104**



### Commentary

This is a special case of the Three Black Crows pattern discussed earlier. The difference is that the second and third black days open at or near the previous day's close (Figure 3-81).

### Rules of Recognition

1. Three long black days are stair-stepping downward.
2. Each day starts at the previous day's close.

### Scenarios and Psychology behind the Pattern

This pattern resembles a panic selling that should cause additional downside action. Each day's close sets a benchmark for opening prices the next trading day. There is a total absence of buying power in this pattern.

## Pattern Flexibility

Because this pattern is a special version of the Three Black Crows pattern, flexibility is almost nonexistent. This pattern has been excluded from most of the statistical testing in later chapters.

## Pattern Breakdown

Like the Three Black Crows pattern, the Identical Three Crows reduces to a long black candlestick (Figure 3-105). This fully supports the pattern's bearish implications.

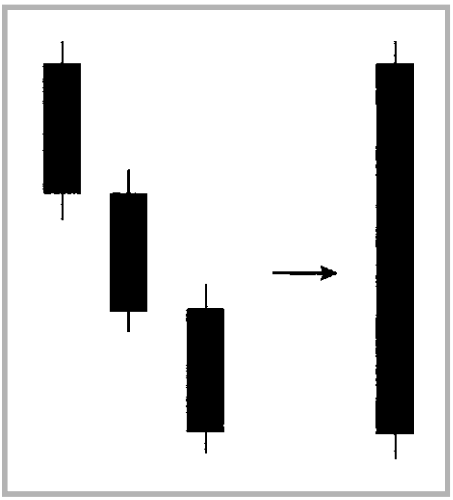


**Figure 3-105**

## Related Patterns

This is a variation of the Three Black Crows pattern.

## Example

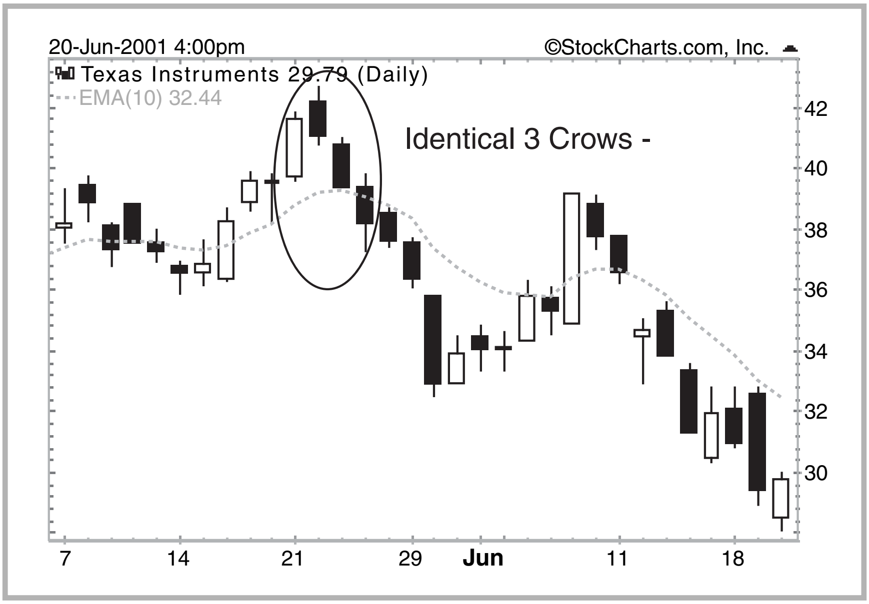



**Figure 3-106**

## ADVANCE BLOCK

| Pattern Name: | Advance Block - | | | | Type: R- | |
|---|---|---|---|---|---|---|
| Japanese Name: | *saki zumari* | | | | | |
| Trend Required: | Yes | Confirmation: | | Required | | |
| Frequency (MDaysBP): | 60,833 | Rare | | | | |

Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 46 | 45 | 48 | 50 | 48 | 45 | 48 |
| Avg. % Gain: | 1.95 | 2.94 | 3.33 | 3.65 | 4.15 | 4.89 | 4.81 |
| % Losers: | 54 | 55 | 52 | 50 | 52 | 55 | 52 |
| Avg. % Loss: | -2.44 | -3.11 | -4.41 | -4.99 | -5.35 | -5.53 | -6.70 |
| Net Profit / Net Loss: | -0.38 | -0.36 | -0.71 | -0.62 | -0.75 | -0.86 | -1.16 |

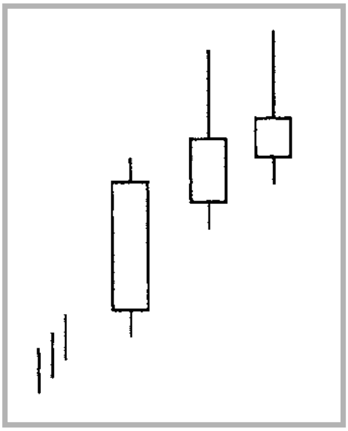


**Figure 3-107**

### Commentary

A shown in Figure 3-107, this pattern is a derivation of the Three White Soldiers pattern. However, it must occur in an uptrend, whereas the Three White Soldiers must occur in a downtrend. Unlike the Three White Soldiers pattern, the second and third days of the Advanced Block pattern show weakness. The long upper shadows show that the price extremes reached during the day cannot hold. This type of action after an uptrend and then for two days in a row should make any bullish market participants nervous, especially if the uptrend was getting overextended.

Remember that this pattern occurs in an uptrend. Most multiple-day patterns begin with a long day, which helps support the existing trend. The two days with long upper shadows show that there is profit taking because the rise is losing its power.

## Rules of Recognition

1. Three white days occur with consecutively higher closes.
2. Each day opens within the previous day's body.
3. A definite deterioration in the upward strength is evidenced by long upper shadows on the second and third days.

## Scenarios and Psychology behind the Pattern

The scenario of the Advance Block pattern closely resembles the events that could take place with the Three White Soldiers pattern. This situation, however, does not materialize into a strong advance. Rather, it weakens after the first day because the close is significantly lower than the high. The third day is as weak as the second day. Remember, weakness in this context is relative to the Three White Soldiers pattern.

## Pattern Flexibility

Defining deterioration is difficult. Although this pattern starts out like the Three White Soldiers, if doesn't produce the upward strength and each day shows smaller body length and longer shadows. The second and third day need to trade higher than their closes.

## Pattern Breakdown

The Advance Block pattern reduces to a long white candle line that is not quite as long as the Three White Soldiers breakdown (Figure 3-108). This long white candlestick also has a long upper shadow, which shows that the prices did not close nearly as high as they got during the trading days. Because of this, the Advance Block is viewed as a bearish pattern. In most cases, this only means that long positions should be protected.

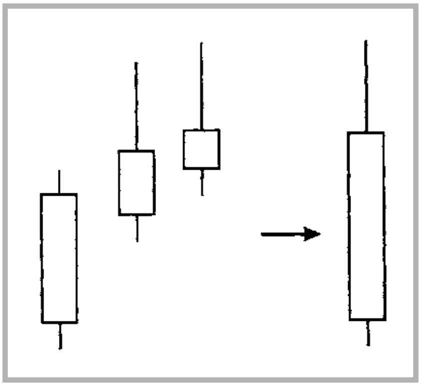


**Figure 3-108**

## Related Patterns

This is a variation of the Three White Soldiers (discussed previously) and the Deliberation pattern (explored later).

## Examples

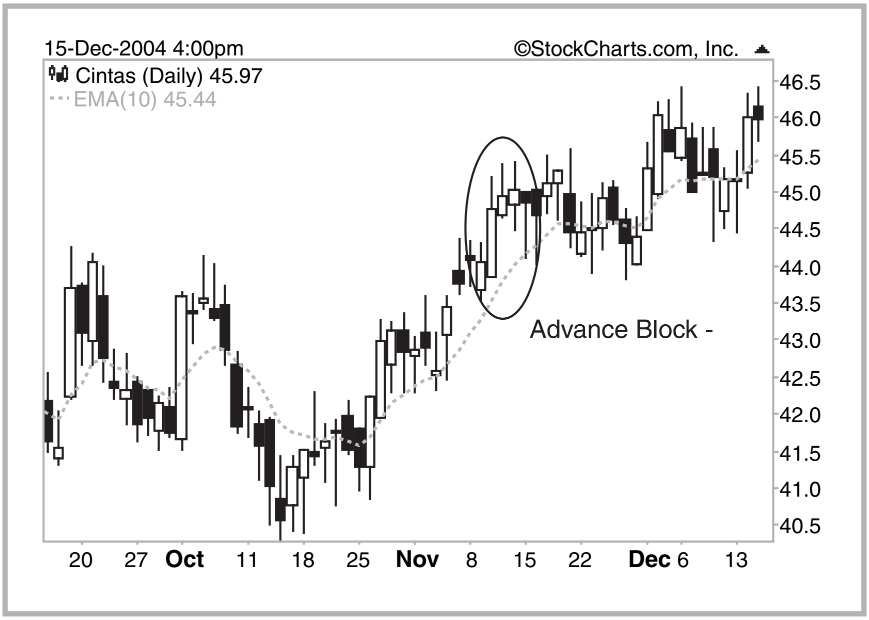



**Figure 3-109**

## DESCENT BLOCK

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Descent Block + | | | | | **Type:** | R+ |
| **Japanese Name:** | *saki zumari kudari* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | | No | |
| **Frequency (MDaysBP):** | 35,012 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **% Winners:** | 52 | 52 | 51 | 53 | 53 | 50 | 53 |
| **Avg. % Gain:** | 2.90 | 4.13 | 4.87 | 5.80 | 6.63 | 7.44 | 8.35 |
| **% Losers:** | 48 | 48 | 49 | 47 | 47 | 50 | 47 |
| **Avg. % Loss:** | -2.79 | -3.68 | -4.35 | -5.36 | -6.31 | -6.90 | -8.03 |
| **Net Profit / Net Loss:** | 0.14 | 0.39 | 0.33 | 0.57 | 0.56 | 0.34 | 0.67 |

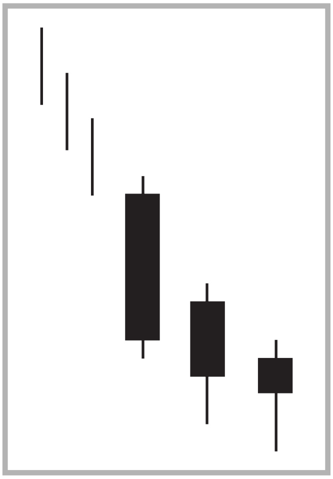


**Figure 3-110**

## Commentary

The Descent Block pattern is a three-day bullish reversal pattern. It was created as the complement to the Advanced Block pattern.

## Rules of Recognition

1. The pattern begins with a long black day that occurs in a downtrend.
2. The next two days are also black days with each closing below the prior day's close.
3. The last two days also have long lower shadows.

## Scenarios and Psychology behind the Pattern

The first day of the pattern is a long black day that occurs in a downtrend. The midpoint value of the first day is below a 10-period moving average. The second day is also a black day that closes below the first day's close. After two black days, the current downtrend seems secure, and the bears are sure to be happy.

The strength of the downtrend attracts new bears, and the third day is another black day that closes below the close of the previous day. With three consecutive black days in a downtrend, the bears are probably becoming complacent.

But, upon closer examination, the Descent Block pattern shows that the current downtrend is actually exhibiting signs of weakness. First, the body range of each day is less than that of the preceding day. Second, each day opens within the prior day's body (there are no gaps between the real bodies in the pattern). Third and last, the second and third days have long lower shadows. Specifically, the lower shadows must occupy more than 40% of the days' high-low ranges.

And so, while the second and third days are making lower closes, the distance between the closes is most likely shrinking. This means that the strength of the downtrend is deteriorating and shorts should protect themselves.

## Pattern Flexibility

The first day of the Descent Block pattern must have a long body. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

## Pattern Breakdown

The Descent Block pattern breaks down into a long black candle line, so confirmation is suggested.

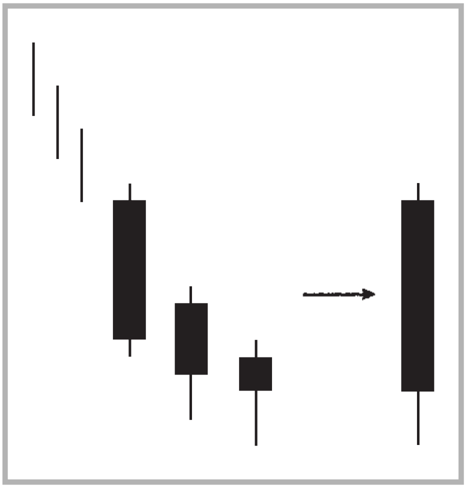


Figure 3-111

## Example

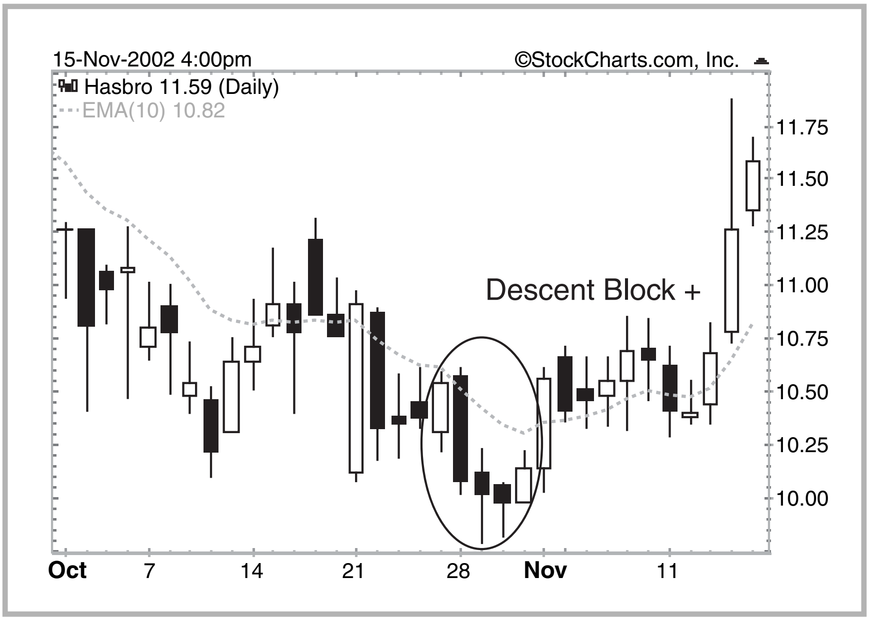



Figure 3-112

## DELIBERATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Deliberation - | | | | | **Type:** R- | |
| **Japanese Name:** | *aka sansei shian boshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | | |
| **Frequency (MDaysBP):** | 1,291 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 52 | 52 | 52 | 53 | 52 | 52 |
| **Avg. % Gain:** | 2.14 | 3.07 | 3.64 | 4.09 | 4.54 | 4.96 | 5.31 |
| **% Losers:** | 48 | 48 | 48 | 48 | 47 | 48 | 48 |
| **Avg. % Loss:** | -2.32 | -3.19 | -3.85 | -4.47 | -4.92 | -5.33 | -5.70 |
| **Net Profit / Net Loss:** | 0.00 | 0.04 | 0.01 | 0.00 | 0.05 | 0.01 | -0.02 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Deliberation + | | | | | **Type:** R+ | |
| **Japanese Name:** | *aka sansei shian boshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | | |
| **Frequency (MDaysBP):** | 1,796 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 53 | 52 | 54 | 54 | 54 | 55 | 55 |
| **Avg. % Gain:** | 3.10 | 4.37 | 5.24 | 6.12 | 6.78 | 7.35 | 7.80 |
| **% Losers:** | 47 | 48 | 46 | 46 | 46 | 45 | 45 |
| **Avg. % Loss:** | -2.83 | -3.82 | -4.63 | -5.17 | -5.67 | -6.20 | -6.66 |
| **Net Profit / Net Loss:** | 0.27 | 0.46 | 0.68 | 0.94 | 1.06 | 1.19 | 1.31 |

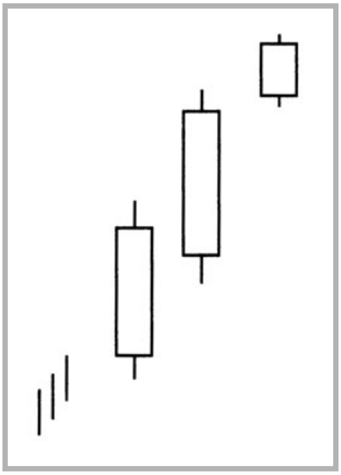


Figure 3-113

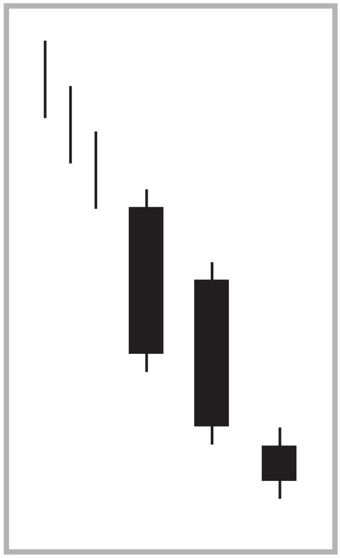


Figure 3-114

## Commentary

### *Bearish Deliberation*

As illustrated in Figure 3-113, the Bearish Deliberation pattern is also a derivative of the Three White Soldiers pattern. The first two long white candlesticks make a new high and are followed by a small white candlestick or a star. This pattern is also called a Stalled pattern in some literature. It is best if the last day gaps above the second day. Being a small body, this shows the indecision necessary to arrest the upmove. This indecision is the time of deliberation. A further confirmation could easily turn this pattern into an Evening Star pattern.

### *Bullish Deliberation*

The Bullish Deliberation pattern is a three-day bullish reversal pattern. The pattern begins with two consecutive long black days that occur in a downtrend. This pattern was created as the bullish counterpart to the bearish Deliberation pattern.

## Rules of Recognition

### *Bearish Deliberation*

1. The first and second day have long white bodies.
2. The third day opens near the second day's close.
3. The third day is a Spinning Top and most probably a star.

### *Bullish Deliberation*

1. The first day of the pattern is a long black day that occurs in a downtrend.
2. The second day is also a long black day.
3. The third day is a Star or relatively small black day that may gap away from the prior day's black real body.

## Scenarios and Psychology behind the Pattern

### *Bearish Deliberation*

This pattern exhibits a weakness similar to the Advance Block pattern in that it gets weak in a short period of time. The difference is that the weakness occurs all at once on the third day. The Deliberation pattern occurs after a sustained upward move and shows that trends cannot last forever. As with the Advance Block, defining the deterioration of the trend can be difficult.

### *Bullish Deliberation*

After two long black days, the current downtrend seems secure, and the bears are sure to be happy. The strength of the downtrend attracts new bears, and the third day opens at or below the close of the previous day. The third day is also a black day. With three consecutive black days in a downtrend, the bears are probably becoming complacent.

But, upon closer examination, the bullish Deliberation pattern shows that the current downtrend is actually exhibiting signs of weakness. First, the high-low range of the third day is less than that of the second day. Specifically, it is less than 75% of the second day's high-low range. Second, the body range of the third day is less than the body range of the second day. The program requires that it be less than 50% of the second day's body range. Third and last, even though the black real body of the third day may gap away from the black real body of the second day, the gap is less than 20% of the second day's high-low range.

## Pattern Flexibility

### *Bearish Deliberation*

If the third white body is also a star, watch for the next day to generate a possible Evening Star pattern.

### *Bullish Deliberation*

And so, while the second and third days are making lower closes, the distance between the closes is most likely shrinking. This means that the strength of the downtrend is deteriorating. If the third day is a Star or a Doji Star, watch for the next day to generate a possible Morning Star or Morning Doji Star pattern.

## Pattern Breakdown

### *Bearish Deliberation*

The Deliberation pattern reduces to a long white candlestick (Figure 3-115). This is in direct conflict with the pattern itself, which suggest the need for further confirmation. A gap down on the following day would produce an Evening Star and therefore support this pattern's bearishness.

Figure 3-115

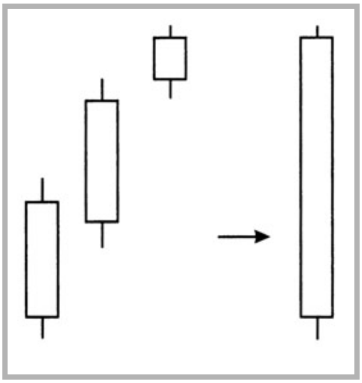
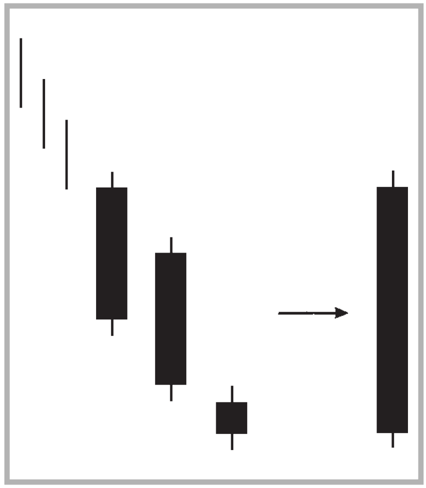


Figure 3-116



***Bullish Deliberation***

The first two long black days of the bullish Deliberation pattern must have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range. The long black day is in conflict with this pattern.

## Related Patterns

See the previous two patterns, the Three White Soldiers and Advance Block.

## Example

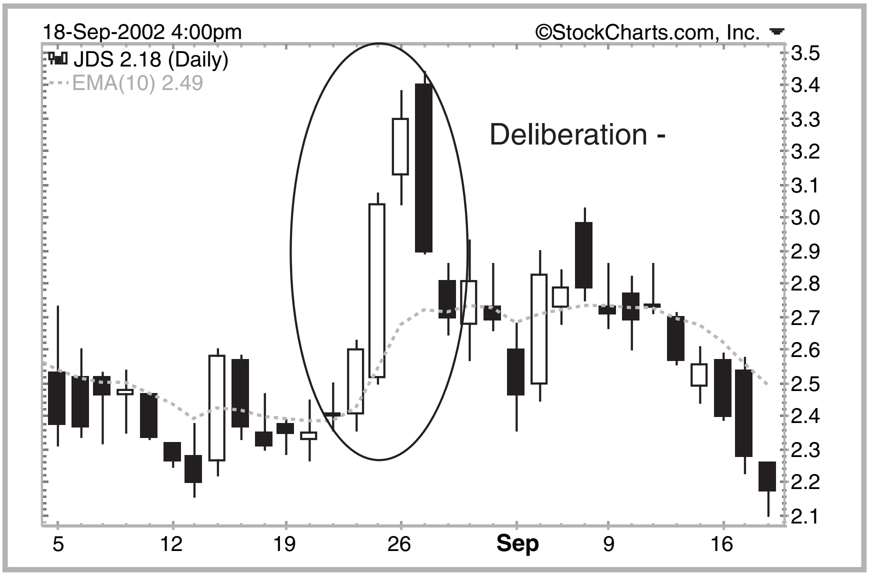



**Figure 3-117**

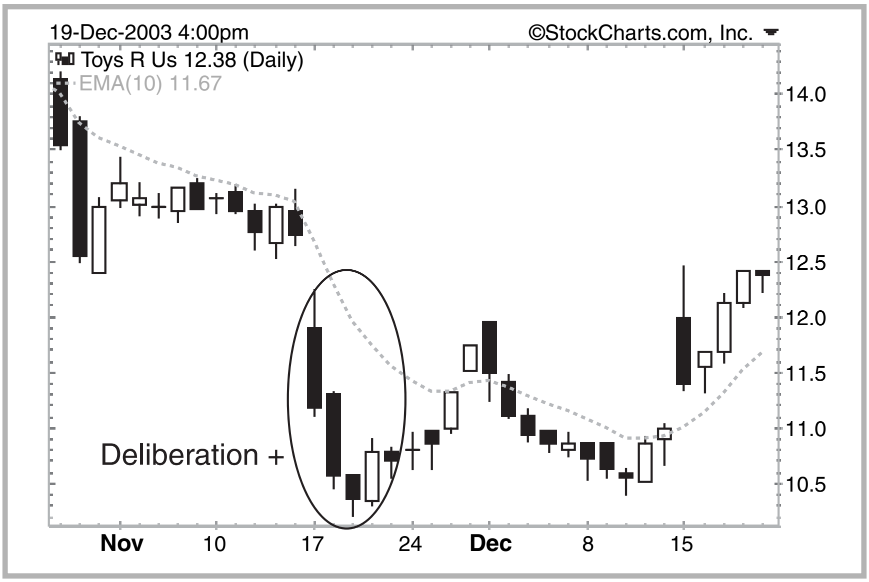


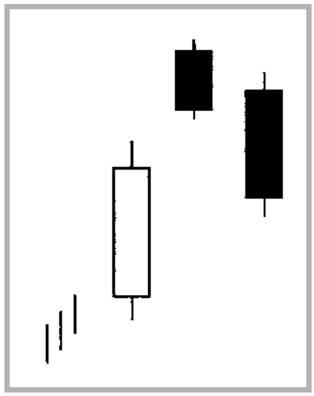

**Figure 3-118**

## TWO CROWS

| Pattern Name: | Two Crows - | | | | Type: R- | |
|---|---|---|---|---|---|---|
| Japanese Name: | *niwa garasu* | | | | | |
| Trend Required: | Yes | Confirmation: | | Required | | |
| Frequency (MDaysBP): | 34,679 | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 50 | 47 | 44 | 44 | 44 | 44 | 46 |
| Avg. % Gain: | 2.41 | 3.76 | 4.63 | 4.98 | 5.78 | 6.25 | 6.44 |
| % Losers: | 50 | 53 | 56 | 56 | 56 | 56 | 54 |
| Avg. % Loss: | -2.71 | -4.13 | -4.61 | -5.23 | -5.99 | -6.13 | -6.55 |
| Net Profit / Net Loss: | -0.13 | -0.44 | -0.51 | -0.73 | -0.85 | -0.65 | -0.55 |

Figure 3-119



### Commentary

This pattern is good only as a topping reversal or bearish pattern. The uptrend is supported by a long white day. The next day gaps much higher, but closes near its low, which is still above the body of the first day. The next (third) day opens inside the body of the second black day, then sells off into the body of the first day. This has closed the gap and given us the same pattern as a Dark Cloud Cover if the last two days of the Two Crows pattern were combined into a single candle line. The fact that this gap was filled so quickly somewhat eliminated the traditional gap analysis, which would indicate a continuation of the trend.

### Rules of Recognition

1. The trend continues with a long white day.
2. The second day is a gap up and a black day.
3. The third day is also a black day.
4. The third day opens inside the body of the second day and closes inside the body if the first day.

### Scenarios and Psychology behind the Pattern

The market has had a extended up move. A gap higher followed by a lower close for the second day shows that there is some weakness in the rally. The third day opens higher, but not above the open of the previous day, and then sells off. This sell-off closes well into the body of the first day. This action fills the gap after only the second day. The bullishness has to be eroding quickly.

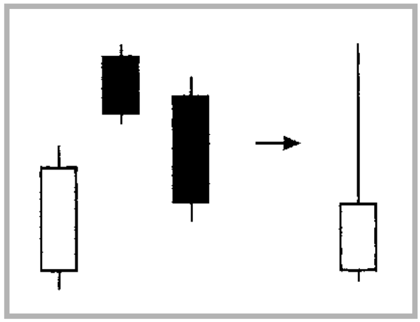
### Pattern Flexibility

The Two Crows pattern is slightly more bearish than the Upside Gap Two crows pattern. The third day is a long black day, which needs to close only inside the body of the first day. The longer this black day is and the lower it closes into the first day, the more bearish it is.

### Pattern Breakdown

The Two Crows pattern reduces to a possible Shooting Star line (Figure 3-120). This would support the bearishness of the Two Crows pattern.

Figure 3-120



## Related Patterns

The Two Crows pattern is similar to the Dark Cloud Cover in that it represents a short-term top in the market. If the second and third days were combined into one, the pattern would become a Dark Cloud Cover. The Upside Gap Two Crows is slightly different in that the third day does not close into the body of the first day. It also is a weak version of the Evening Star, except that there is no gap between the second and third bodies.

## Example

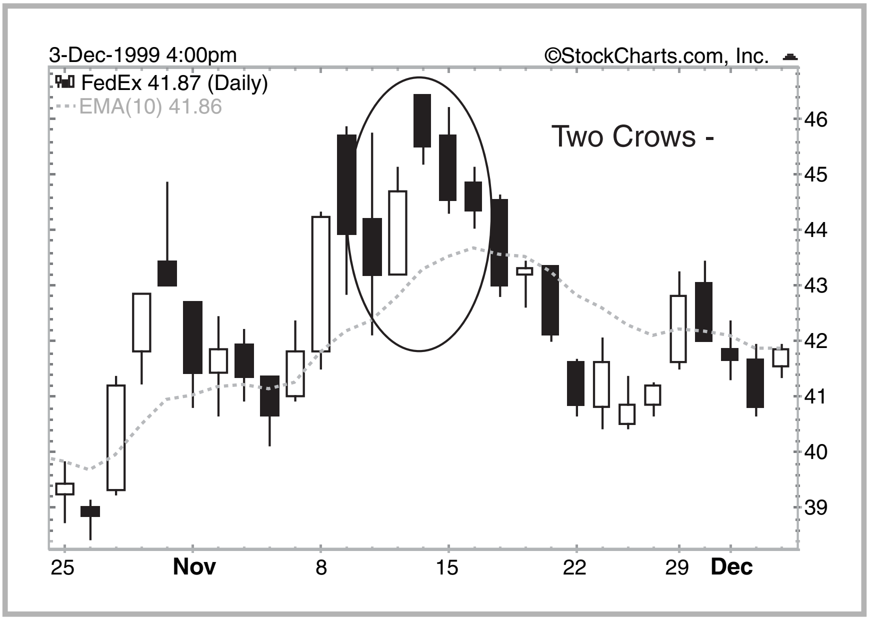
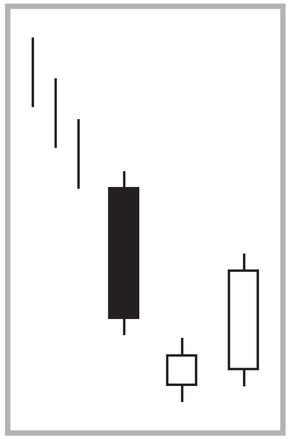



**Figure 3-121**

## TWO RABBITS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Two Rabbits + | | | | | **Type:** R+ | |
| **Japanese Name:** | *nihiki no usagi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Suggested | | | |
| **Frequency (MDaysBP):** | 48,026 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 48 | 50 | 52 | 55 | 57 | 53 | 49 |
| **Avg. % Gain:** | 2.30 | 3.39 | 4.35 | 4.67 | 4.85 | 5.55 | 6.24 |
| **% Losers:** | 52 | 50 | 48 | 45 | 43 | 47 | 51 |
| **Avg. % Loss:** | -2.54 | -3.57 | -4.36 | -5.45 | -5.73 | -5.89 | -5.94 |
| **Net Profit / Net Loss:** | -0.21 | -0.07 | 0.14 | 0.12 | 0.25 | 0.19 | 0.02 |

Figure 3-122



### Commentary

The Two Rabbits pattern is a three-day bullish reversal pattern. The last two days' white candlesticks represent two white rabbits ready to jump out of their burrow. The Two Rabbits pattern was created as the bullish counterpart to the Two Crows pattern.

### Rules of Recognition

1. The pattern begins with a black day that occurs during a downtrend.
2. The second day is a downward gapping white day.
3. The third day is also a white day that opens inside the body of the second day and then closes inside the body of the first day.

### Scenarios and Psychology behind the Pattern

The Two Rabbits pattern starts with a long black day. The midpoint of the range of the first day is below a 10-period moving average.

This means that a downtrend has been in place. The long black day adds to the bearishness already present.

The next day opens lower with a gap. The new low does not hold, however, and the day actually forms a white candlestick. The bears are not shaken by this day because the close of the white day is still below the close of the first day.

The third day opens inside the body of the second day and then closes inside the body of the first day. The fact that the gap between the first and second days was filled so quickly goes counter to traditional gap analysis, which would indicate a continuation of the downtrend.

## Pattern Flexibility

Note: This also requires that the gap between the real bodies of the first and second days be greater than 10% of the high-low range of the first day.

All three days must also have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

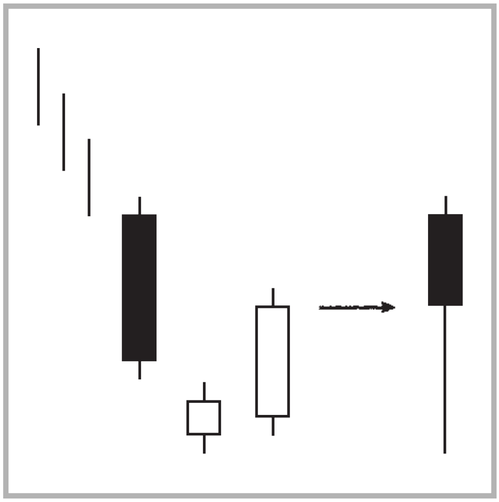
## Pattern Breakdown

The Two Rabbits pattern (Figure 3-123) reduces to a Hammer line. This supports the bullishness of the pattern.

## Related Patterns

The Two Rabbits pattern is similar to the Downside Gap Two Rabbits pattern.

Figure 3-123



## Example

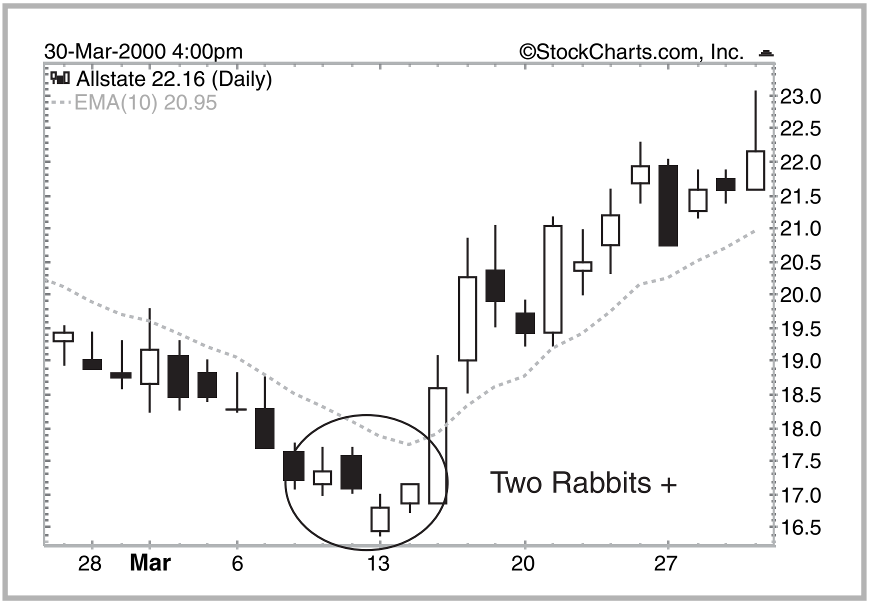



Figure 3-124

## THREE INSIDE UP AND THREE INSIDE DOWN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Three Inside Up + | | | | **Type:** R+ | | |
| **Japanese Name:** | *harami age* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | | |
| **Frequency (MDaysBP):** | 530 | Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 49 | 49 | 50 | 50 | 50 | 50 | 50 |
| **Avg. % Gain:** | 2.59 | 3.58 | 4.27 | 4.88 | 5.47 | 5.96 | 6.38 |
| **% Losers:** | 51 | 51 | 50 | 50 | 50 | 50 | 50 |
| **Avg. % Loss:** | -2.33 | -3.17 | -3.82 | -4.42 | -4.94 | -5.41 | -5.85 |
| **Net Profit / Net Loss:** | 0.06 | 0.10 | 0.20 | 0.22 | 0.21 | 0.26 | 0.25 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Three Inside Down - | | | | **Type:** R- | | |
| **Japanese Name:** | *harami sage* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 493 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 48 | 47 | 48 | 48 | 47 | 47 | 47 |
| **Avg. % Gain:** | 2.21 | 3.02 | 3.62 | 4.21 | 4.74 | 5.14 | 5.53 |
| **% Losers:** | 52 | 53 | 52 | 52 | 53 | 53 | 53 |
| **Avg. % Loss:** | -2.43 | -3.35 | -3.98 | -4.52 | -5.11 | -5.56 | -5.94 |
| **Net Profit / Net Loss:** | -0.20 | -0.32 | -0.34 | -0.35 | -0.43 | -0.50 | -0.56 |

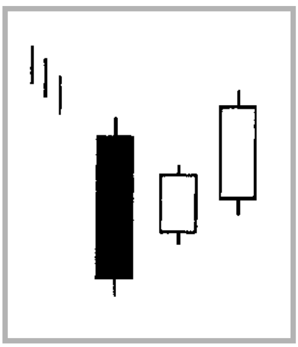


**Figure 3-125**

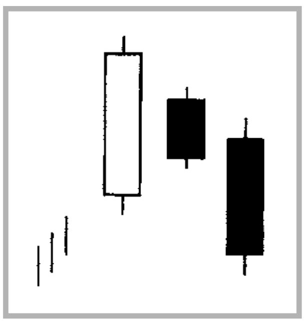


**Figure 3-126**

## Commentary

The Three Inside Up and Three Inside Down patterns are confirmations for the Harami pattern. As shown in Figure 3-125 and 3-126, the first two days are exactly the same as the Harami. This third day is a confirming close day with respect to the bullish or bearish case. A bullish Harami followed by a third day that closes higher would be a Three Inside Up pattern. Similarly, a bearish Harami with a lower close on the third day would be a Three Inside Down pattern.

The Three Inside Up and Three Inside Down patterns are not found in any Japanese literature. We developed them to assist in improving the overall results of the Harami pattern, and they have done quite well.

## Rules of Recognition

1. A Harami pattern is first identified using all previously set rules.
2. The third day shows a higher close for a Three Inside Up and a lower close for a Three Inside Down.

## Scenarios and Psychology behind the Pattern

This pattern, being a confirmation for the Harami, can represent the success of the Harami pattern only by moving in the forecast direction.

## Pattern Flexibility

Because this pattern is a confirmation of the Harami pattern, the flexibility would be the same as that of the Harami. The amount of the engulfment and size of the second day helps to strengthen or weaken this pattern, as the case may be.

## Pattern Breakdown

The bullish Three Inside Up pattern reduces to a bullish Hammer, which supports the pattern (Figure 3-127). The bearish Three Inside Down reduces to a bearish Shooting Star line, which also supports it (Figure 3-128).

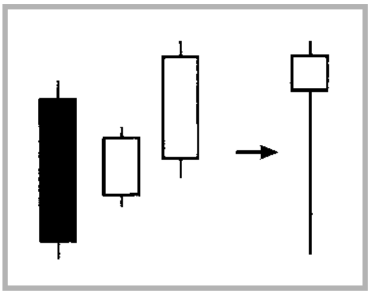


**Figure 3-127**

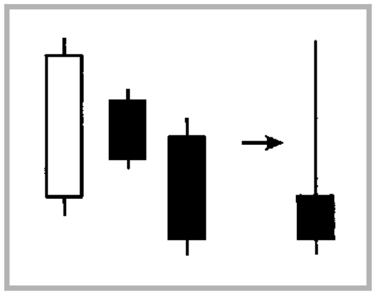


**Figure 3-128**

## Related Patterns

The Harami pattern and Harami Cross pattern are part of these patterns.

## Examples

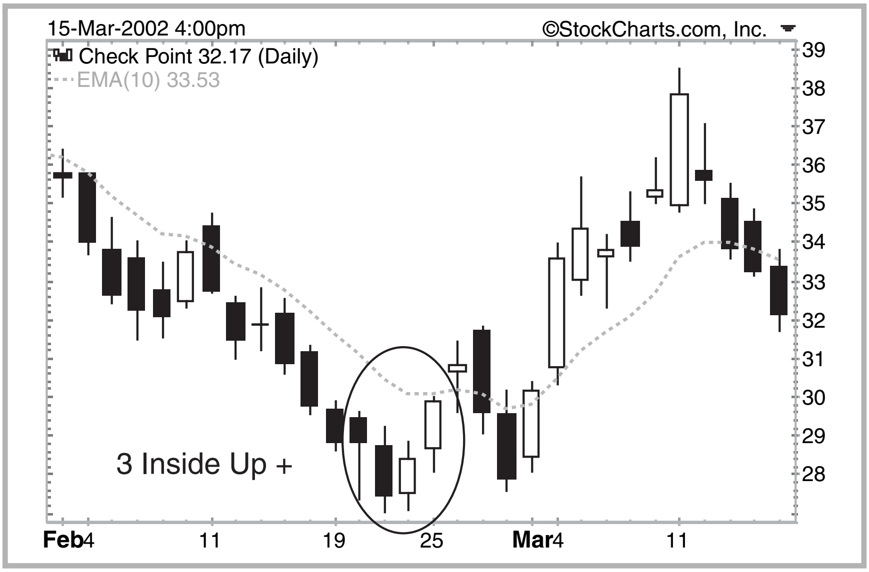



**Figure 3-129A**

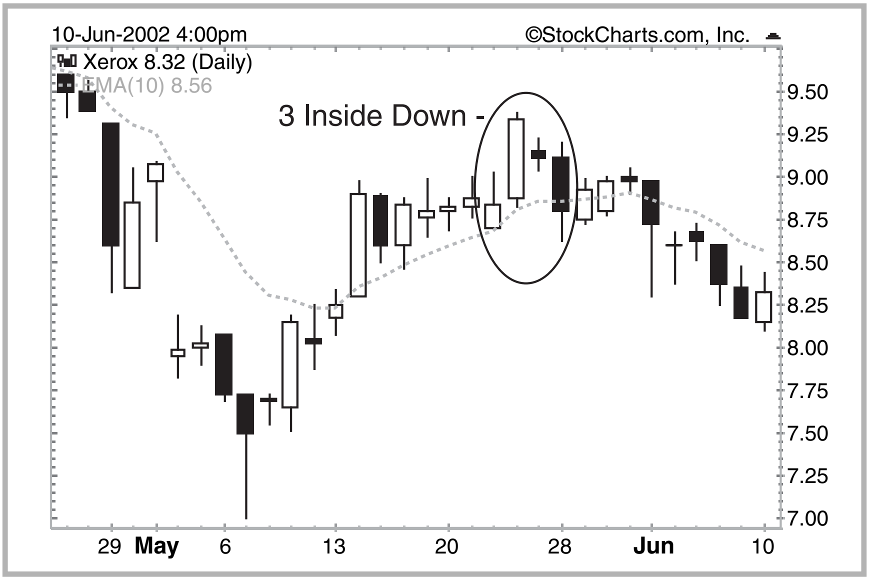



**Figure 3-129B**

## THREE OUTSIDE UP AND THREE OUTSIDE DOWN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Three Outside Up + | | | | | **Type:** | R+ |
| **Japanese Name:** | *tsutsumi aga* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | | |
| **Frequency (MDaysBP):** | 454 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 48 | 49 | 49 | 49 | 49 | 49 | 49 |
| **Avg. % Gain:** | 2.65 | 3.67 | 4.35 | 5.00 | 5.52 | 6.01 | 6.42 |
| **% Losers:** | 52 | 51 | 51 | 51 | 51 | 51 | 51 |
| **Avg. % Loss:** | -2.41 | -3.28 | -3.92 | -4.44 | -4.90 | -5.41 | -5.86 |
| **Net Profit / Net Loss:** | 0.00 | 0.10 | 0.15 | 0.21 | 0.22 | 0.20 | 0.19 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Three Outside Down - | | | | | **Type:** | R- |
| **Japanese Name:** | *tsutsumi sage* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 469 | Quite Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 46 | 47 | 46 | 46 | 46 | 45 |
| **Avg. % Gain:** | 2.41 | 3.24 | 3.89 | 4.47 | 5.01 | 5.40 | 5.84 |
| **% Losers:** | 53 | 54 | 53 | 54 | 54 | 54 | 55 |
| **Avg. % Loss:** | -2.64 | -3.58 | -4.20 | -4.77 | -5.37 | -5.87 | -6.29 |
| **Net Profit / Net Loss:** | -0.27 | -0.40 | -0.40 | -0.46 | -0.55 | -0.72 | -0.85 |

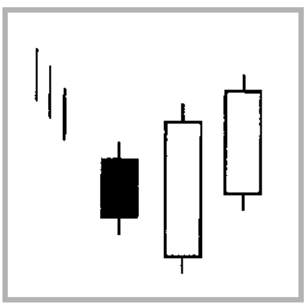


**Figure 3-130**

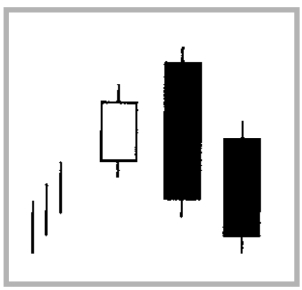


**Figure 3-131**

## Commentary

The Three Outside Up and Three Outside Down patterns (Figure 3-130 and 3-131) are confirmations for the Engulfing patterns. The concept is identical to the Three Inside Up and Three Inside Down patterns and how they worked with the Harami. Here, the Engulfing pattern is followed by either a higher or a lower close on the third day, depending on whether the pattern is up or down.

The Three Outside Up and Three Outside Down patterns are not found in any Japanese literature. We developed them to assist in improving the overall results of the Engulfing pattern, and they have done quite well.

## Pattern Recognition

1. An Engulfing pattern is formed using all of the previously set rules.
2. The third day has a higher close for the Threee Outside Up pattern and a lower for a Three Outside Down pattern.

## Scenarios and Psychology behind the Pattern

These patterns, representing the confirmation of the Engulfing pattern, can only show the success of the forecast of the appropriate Engulfing pattern.

## Pattern Flexibility

Confirmation patterns do not have any more flexibility than the underlying pattern. The amount of confirmation made on the last day can influence the magnitude of this pattern's forecast.

## Pattern Breakdown

The bullish Three Outside Up pattern reduces to a possible Hammer line (Figure 3-132), and the bearish Three Outside Down reduces to a possible Shooting Star line (Figure 3-133). The word possible is used here because the difference between the first day's open and the third day's close can be significant, which would negate the Hammer and Shooting Star line. The supporting point is that the body will be the color of the sentiment.

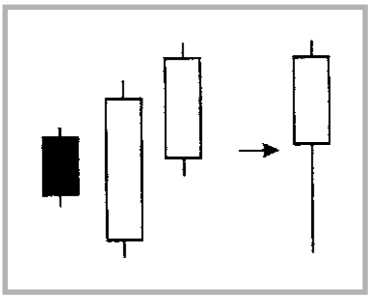


**Figure 3-132**

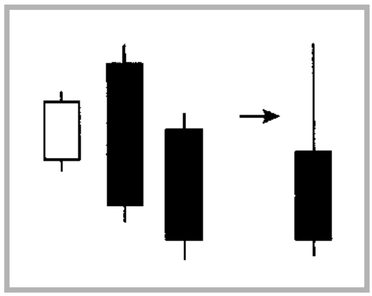


**Figure 3-133**

## Related Patterns

The Engulfing pattern is a subpart of this pattern.

## Examples

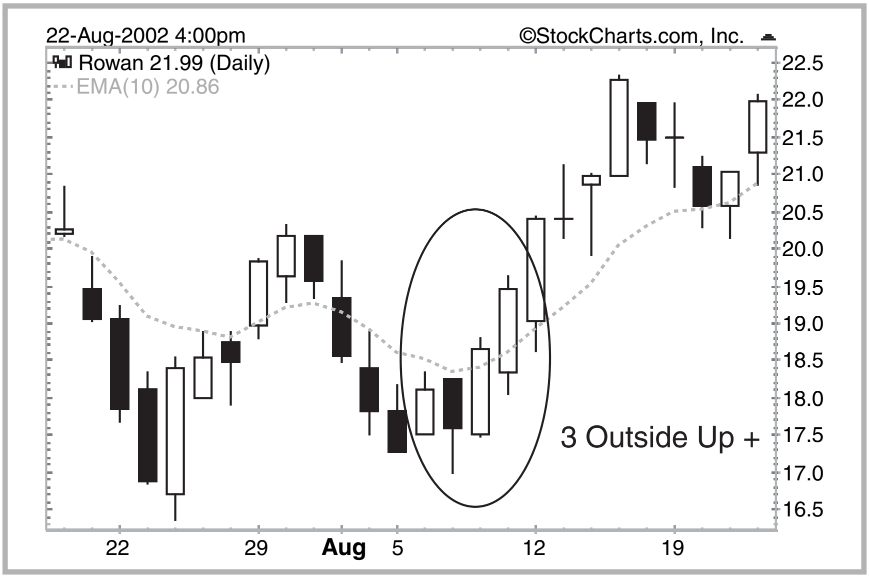



**Figure 3-134A**

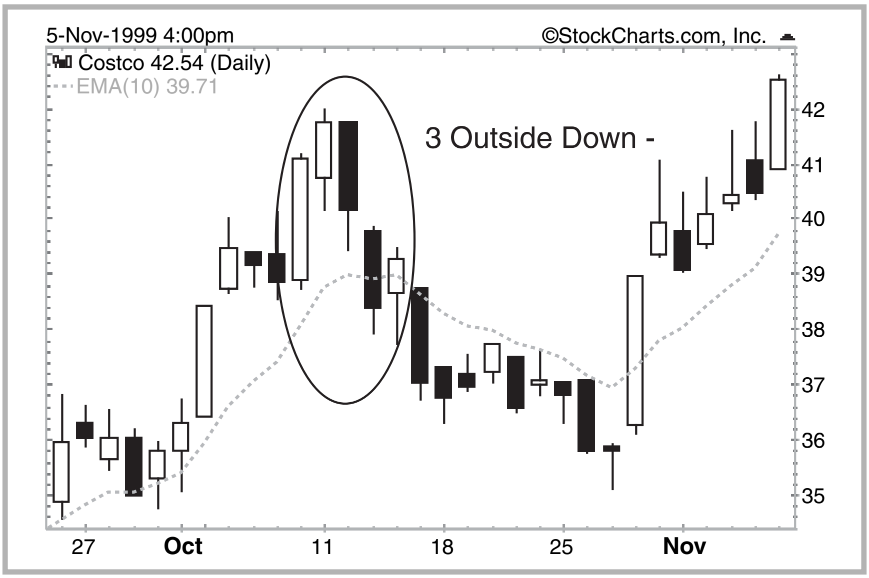



**Figure 3-134B**

## THREE STARS IN THE SOUTH

| Pattern Name: | 3 Stars in the South + | | | | Type: R+ | |
|---|---|---|---|---|---|---|
| Japanese Name: | *kyoku no santen boshi* | | | | | |
| Trend Required: | Yes | Confirmation: | | | Suggested | |
| Frequency (MDaysBP): | 417,143 | Extremely Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 59 | 45 | 61 | 64 | 52 | 48 | 39 |
| Avg. % Gain: | 2.39 | 3.43 | 2.44 | 2.52 | 3.83 | 4.76 | 5.79 |
| % Losers: | 41 | 55 | 39 | 36 | 48 | 52 | 61 |
| Avg. % Loss: | -3.16 | -3.36 | -6.10 | -6.65 | -5.29 | -3.92 | -3.32 |
| Net Profit / Net Loss: | 0.13 | -0.26 | -0.87 | -0.77 | -0.56 | 0.28 | 0.26 |

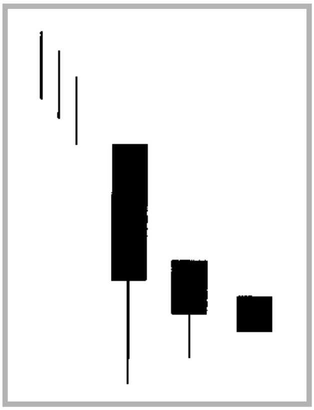


**Figure 3-135**

### Commentary

This pattern shows a downtrend slowly deteriorating with less and less daily price movement and consecutively higher lows (Figure 3-135). The long lower shadow on the first day is crucial to this pattern because it is the first sign of buying enthusiasm. The next day opens higher, trades lower, but does not go lower than the previous day's low. The second day also closes off of its low. The third day is a Black Marubozu and is engulfed by the previous day's range.

### Rules of Recognition

1. The first day is a long black day with a long lower shadow (Hammer-like).
2. The second day has the same basic shape as the first day, only smaller. The low is above the previous day's low.
3. The third day is a small Black Marubozu that opens and closes inside the previous day's range.

### Scenarios and Psychology behind the Pattern

A downtrend has continued when, after a new low has been made, a rally closes well above the low. This will cause some concern among the shorts because it represents buying, something that has not been happening until now. The second day opens higher, which lets some longs get out of their positions. However, that is the high for the day. Trading is lower, but not lower than the previous day, which causes a rally to close above the low. The bears are certainly concerned now because of the higher low. The last day is a day of indecision, with hardly any price movement. Anyone who is still short will not want to see anything more to the up side.

### Pattern Flexibility

The last day of this pattern could have small shadows that probably would not greatly affect the outcome. Basically, each consecutive day is engulfed by the previous day's range.

### Pattern Breakdown

This pattern reduces to a long black line, which is normally quite bearish (Figure 3-136). Because of this conflict, definite confirmation should be required.

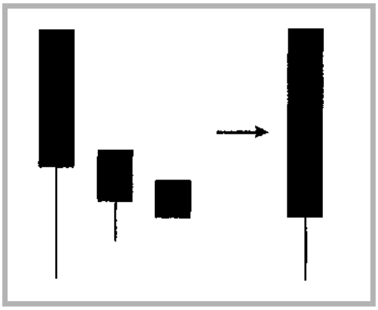


Figure 3-136

## Related Patterns

This is somewhat like the Three Black Crows, except that the lows are not lower and the last day is not a long body. Of course, this pattern has a bullish implication, whereas the Three Black Crows pattern is bearish.

## Example

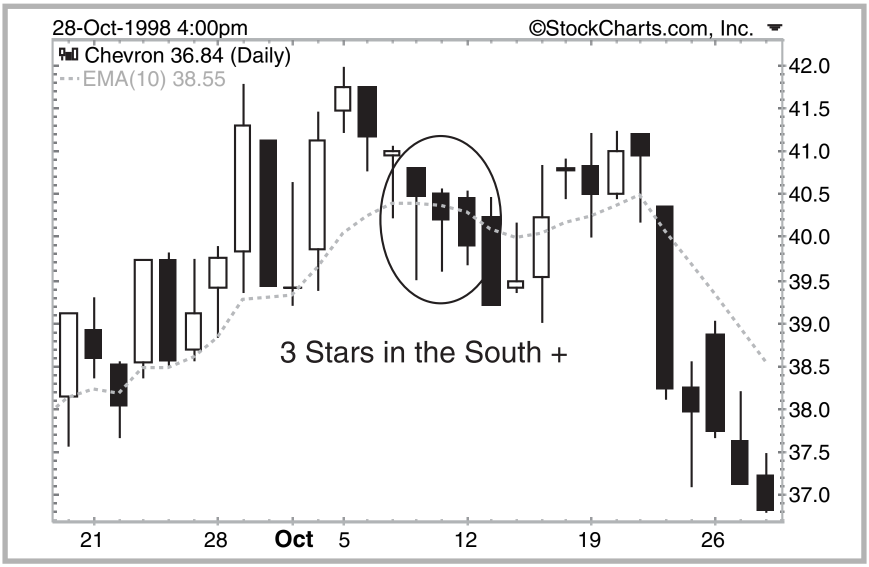
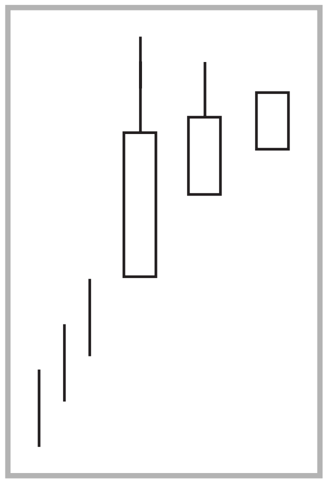



Figure 3-137

## THREE STARS IN THE NORTH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | 3 Stars in the North - | | | | | **Type:** R- | |
| **Japanese Name:** | *kita no mitsuboshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 768,421 | Extremely Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 53 | 63 | 47 | 42 | 44 | 47 | 21 |
| **Avg. % Gain:** | 0.96 | 1.44 | 1.36 | 1.67 | 1.68 | 1.46 | 2.27 |
| **% Losers:** | 47 | 37 | 53 | 58 | 56 | 53 | 79 |
| **Avg. % Loss:** | -2.65 | -3.21 | -3.23 | -4.61 | -8.93 | -10.40 | -6.68 |
| **Net Profit / Net Loss:** | -0.66 | -0.27 | -1.06 | -1.97 | -3.99 | -4.77 | -4.80 |

**Figure 3-138**



### Commentary

The Three Stars in the North pattern is a three-day bearish reversal pattern. It was created as the bearish counterpart to the Three Stars in the South pattern.

## Rules of Recognition

1. The pattern consists of three white days, with the second and third days each making a lower high and a higher low than the preceding day.
2. The Three Stars in the North pattern begins with a long white day. The midpoint value of the first day is above a 10-period moving average. This means that an uptrend is in place.
3. It is strongly recommended that the first day's upper shadow occupy more than 40% of the day's high-low range. The first day also has little or no lower shadow. It is also recommended that the first day's lower shadow should occupy less than 7.5% of the high-low range.
4. The second day opens below the close of the first day, trades higher, and finally closes above the close of the first day. The high of the second day is below the high of the first day. The second day has the same upper and lower shadow requirements as the first day.
5. The third day is a small White Marubozu that opens and closes inside the high-low range of the second day. A White Marubozu is a white candlestick line with little or no upper and lower shadows.

## Scenarios and Psychology behind the Pattern

The Three Stars in the North pattern shows an uptrend slowly deteriorating with less and less daily price movement and consecutively lower highs and higher lows. The first day of the pattern also has a long upper shadow. The long upper shadow is crucial to this pattern because it is the first sign of sellers coming into the market.

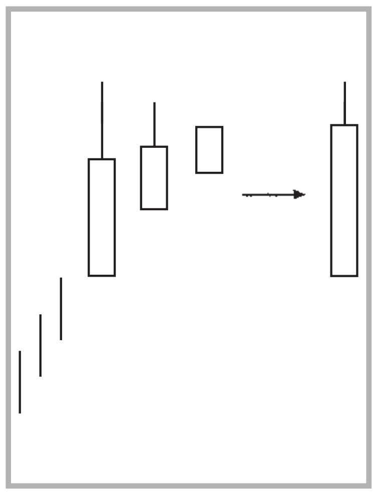
## Pattern Flexibility

Because of the many definitional requirements of this pattern, it is a very rare pattern. In fact, you must widen your acceptance of slight differences in the candle lines. Otherwise it would never appear at all. You see, Marubozu days are very rare. That coupled with the shadow requirements of the first two days make this pattern extremely rare. We did not tamper with the shadow requirements of the first two days, but we did change the body size requirement of the third day. Instead of requiring that the third day be a Marubozu day, we require only that the third day's body range be greater than 50% of its high-low range. Typically, it is recommended that a single Marubozu day should have a body range that is greater than 90% of the day's high-low range.

## Pattern Breakdown

Because the pattern reduces to a long white candlestick line, confirmation is required.

**Figure 3-139**



## Example

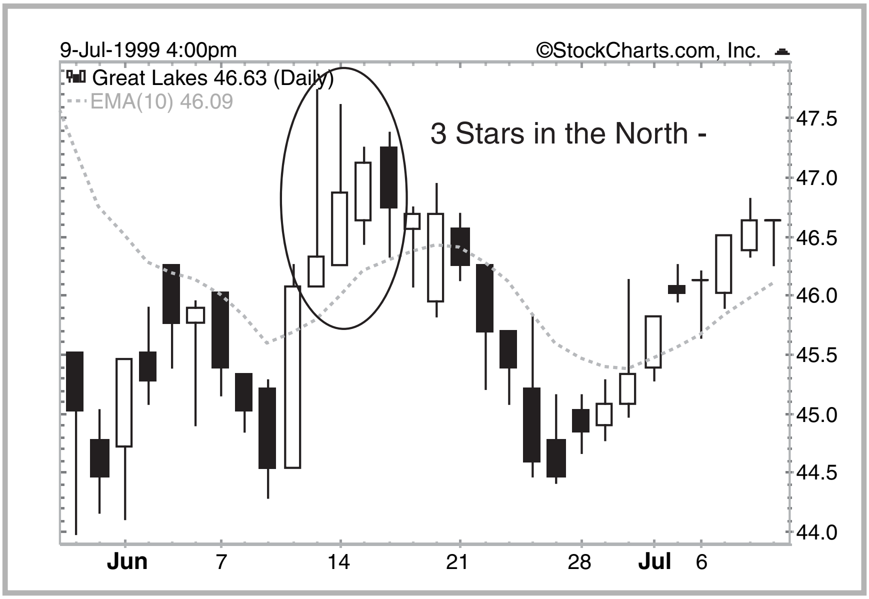



**Figure 3-140**

## STICK SANDWICH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Stick Sandwich + | | | | | **Type:** R+ | |
| **Japanese Name:** | *gyakusashi niten zoko* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | No | | |
| **Frequency (MDaysBP):** | 19,338 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 59 | 56 | 57 | 60 | 59 | 58 | 57 |
| **Avg. % Gain:** | 2.37 | 3.17 | 4.05 | 4.69 | 5.19 | 5.38 | 5.82 |
| **% Losers:** | 41 | 44 | 43 | 40 | 41 | 42 | 43 |
| **Avg. % Loss:** | -2.26 | -3.20 | -3.74 | -4.51 | -4.87 | -5.27 | -5.79 |
| **Net Profit / Net Loss:** | 0.44 | 0.35 | 0.66 | 0.98 | 1.00 | 0.89 | 0.80 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Stick Sandwich - | | | | | **Type:** R- | |
| **Japanese Name:** | *gyakusashi niten zoko* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Suggested | | |
| **Frequency (MDaysBP):** | 18,025 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 59 | 55 | 54 | 53 | 52 | 52 | 51 |
| **Avg. % Gain:** | 1.86 | 2.58 | 2.93 | 3.25 | 3.62 | 4.06 | 4.33 |
| **% Losers:** | 41 | 45 | 46 | 47 | 48 | 48 | 49 |
| **Avg. % Loss:** | -1.88 | -2.41 | -2.85 | -3.31 | -3.76 | -4.33 | -4.81 |
| **Net Profit / Net Loss:** | 0.30 | 0.30 | 0.26 | 0.14 | 0.05 | 0.03 | -0.15 |

**Figure 3-141**

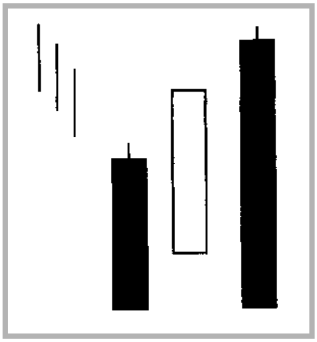
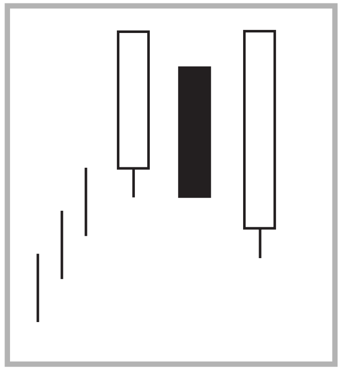


**Figure 3-142**



## Commentary

### *Bullish Stick Sandwich*

In the bullish Stick Sandwich pattern, two black bodies have a white body between them (Figure 3-141). The closing prices of the two black bodies must be equal. A support price has been found and the opportunity for prices to reverse is quite good.

### *Bearish Stick Sandwich*

The bearish Stick Sandwich pattern (Figure 3-142) is a three-day bearish reversal pattern. It was created as the bearish counterpart to the bullish Stick Sandwich pattern.

## Rules of Recognition

### *Bullish Stick Sandwich*

1. A black body in a downtrend is followed by a white body that trades above the close of the previous black body.
2. The third day is a black day with a close equal to the first day.

### *Bearish Stick Sandwich*

1. The pattern starts with a white day that occurs during an uptrend.
2. The second day has a black real body that opens below the previous day's close and closes below the previous day's open.
3. The third day is a white real body that engulfs the second day's black real body.

## Scenarios and Psychology behind the Pattern

### *Bullish Stick Sandwich*

A good downtrend is underway. Prices open higher on the next trading day and then trade higher all day, closing at or neat the high. This action suggests that the previous downtrend has probably reversed and that shorts should be protected, if not covered. The next day, prices open even higher, which should cause some covering initially, but then prices drift lower to close at the same price as two days ago. Anyone who does not note support and resistance points in the market is taking exceptional risk. Another day of trading should tell the story.

### *Bearish Stick Sandwich*

The key to this pattern is that the closing prices of the first and third days' white real bodies must be equal. The bearish Stick Sandwich pattern begins with a white day. The midpoint value of the first day is above a 10-period moving average. This means that an uptrend is in place. Prices open lower on the next day and then trade lower all day, closing at or near the low for the day. This action suggests that the uptrend has probably reversed and that any long positions should be protected, if not closed out.

The next day, prices open even lower, which should cause some selling initially, but then prices climb higher to close at the same price as the first day. Anyone who does not note support and resistance points in the market is taking exceptional risk. Another day of trading should tell the story.

## Pattern Flexibility

### *Bullish Stick Sandwich*

Some Japanese references use the low prices as the support point for the two black days. Using the close price presents a more memorable support point and therefore a better chance of reversal.

### *Bullish Stick Sandwich*

Note: The bearish Stick Sandwich pattern does not have any length of day or length of body requirements for the three days that make up the pattern (save for the second day, which must have a long body so that it closes near its low). Therefore, the first day may have a small body with or without a long upper and/or a long lower shadow. Accordingly, the bearish Stick Sandwich pattern can break down into many different candlestick lines, including a long white candlestick line, a Hanging Man line, or a white real body with long upper and lower shadows.

Note: Because of decimalization you must allow a very small amount of flexibility or tolerance into the pattern. You should consider the first and third days to have the same closing price as long as the third day's closing price is within one one-thousandth (1/1000) of the first day's closing price. So, for example, if the first day closes at 20, the third day is permitted to close between 19.98 and 20.02.

## Pattern Breakdown

### *Bullish Stick Sandwich*

The bullish Stick Sandwich breaks down to an Inverted Hammer line as long as the body of the first day is considerably smaller than the range of the third day (Figure 3-143). If the first day is a small body and the third day's price range (high to low) is two or three times that of the first day, this pattern reduces to the bullish Inverted Hammer. However, if this does not occur, the bullish Stick Sandwich reduces to a black line, which is usually bearish. As a result, confirmation is suggested.

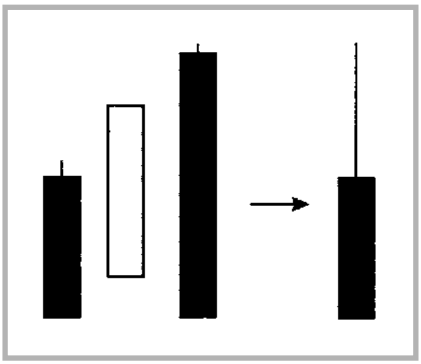
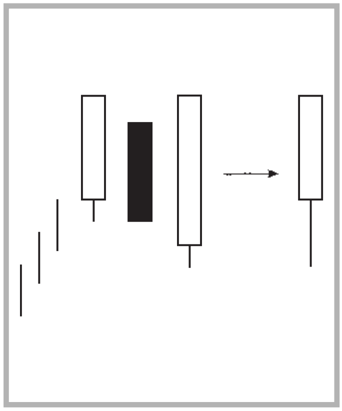


**Figure 3-143**

### *Bearish Stick Sandwich*

Confirmation is strongly suggested, as this pattern reduces to a long white candle line with a lower shadow and no upper shadow.

Figure 3-144



## Related Patterns

### *Bullish Stick Sandwich*

The last two days of this pattern are similar to a bearish Engulfing pattern in most instances. It would have to be seen if the support point is better than the bearish candle pattern, assuming no consideration is made to the previous trend.

## Examples

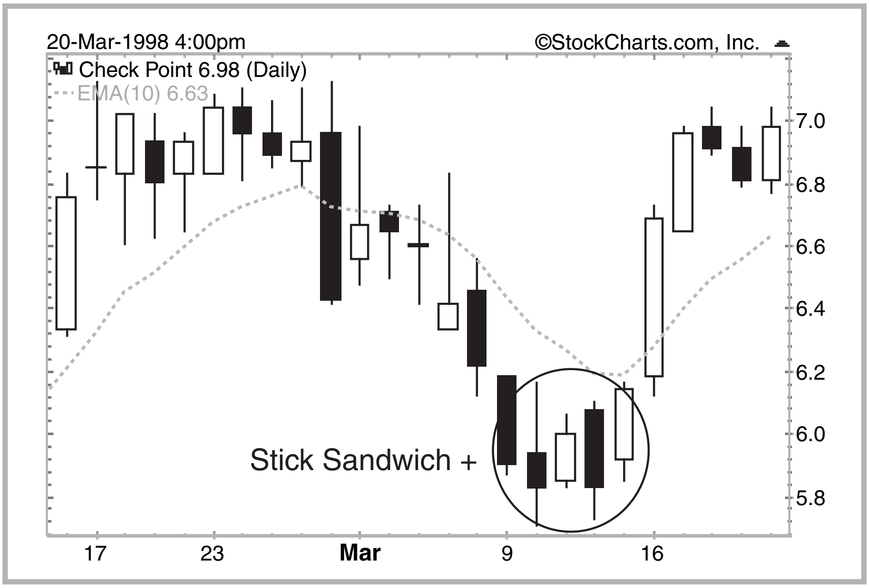



**Figure 3-145**

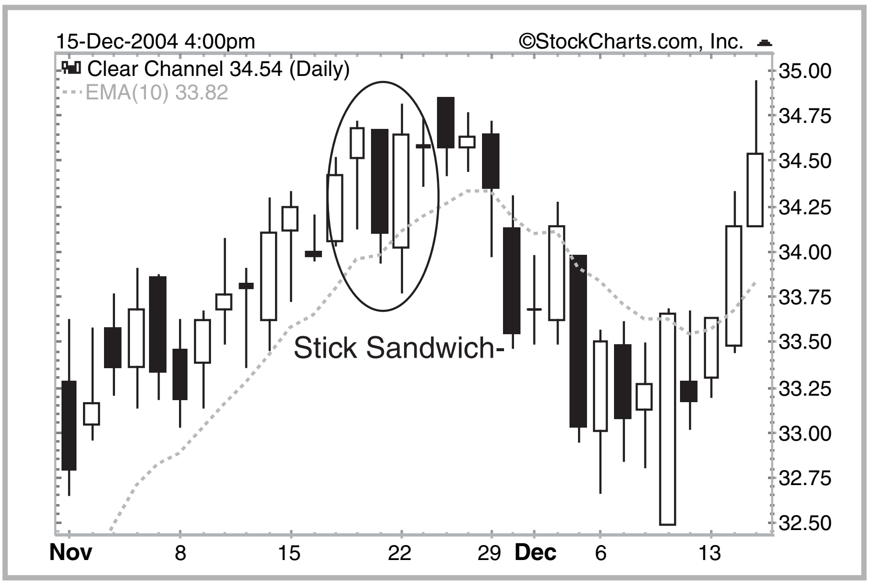



**Figure 3-146**

## SQUEEZE ALERT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Squeeze Alert + | | | | | **Type:** R+ | |
| **Japanese Name:** | *tsukami* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | No | | | |
| **Frequency (MDaysBP):** | 1,046 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 50 | 51 | 51 | 52 | 53 | 53 | 53 |
| **Avg. % Gain:** | 2.88 | 4.24 | 5.29 | 6.11 | 6.83 | 7.46 | 8.08 |
| **% Losers:** | 50 | 49 | 49 | 48 | 47 | 47 | 47 |
| **Avg. % Loss:** | -2.52 | -3.78 | -4.64 | -5.32 | -5.93 | -6.58 | -7.05 |
| **Net Profit / Net Loss:** | 0.15 | 0.29 | 0.45 | 0.62 | 0.78 | 0.85 | 1.02 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Squeeze Alert - | | | | | **Type:** R- | |
| **Japanese Name:** | *tsukami* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Required | | | |
| **Frequency (MDaysBP):** | 930 | Frequent | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 52 | 52 | 52 | 51 | 51 | 51 |
| **Avg. % Gain:** | 2.32 | 3.34 | 4.05 | 4.62 | 5.15 | 5.58 | 5.95 |
| **% Losers:** | 48 | 48 | 48 | 48 | 49 | 49 | 49 |
| **Avg. % Loss:** | -2.46 | -3.63 | -4.54 | -5.19 | -5.86 | -6.38 | -6.88 |
| **Net Profit / Net Loss:** | 0.00 | -0.02 | -0.09 | -0.11 | -0.19 | -0.26 | -0.36 |

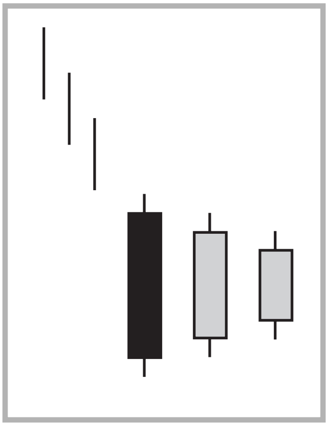


Figure 3-147

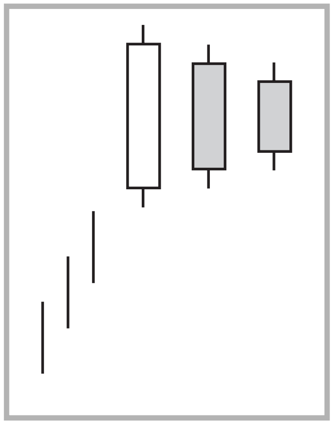


Figure 3-148

## Commentary

### *Bullish Squeeze Alert*

The bullish Squeeze Alert pattern is a three-day bullish reversal pattern. It was developed because of the frequent event that prices can either break out dramatically to the upside or to the downside following this pattern, especially if the pattern is preceded by a strong move to the downside.

### *Bearish Squeeze Alert*

The bearish Squeeze Alert pattern is a three-day bearish reversal pattern. It was developed because of the nature of markets that prices can either break out dramatically to the upside or to the downside following this pattern, especially if the pattern is preceded by a strong move to the upside.

## Rules of Recognition

### *Bullish Squeeze Alert*

1. The pattern occurs in a downtrend.
2. The first day of the pattern is a relatively long day because

the second and third days will each have lower highs and higher lows than the previous day.
3. The sizes of the bodies of the three days do not matter.

#### *Bearish Squeeze Alert*

1. The pattern occurs in an uptrend.
2. The first day of the pattern is a relatively long day because the second and third days will each have lower highs and higher lows than the previous day.
3. The sizes of the bodies of the three days do not matter.

### Scenarios and Psychology behind the Pattern

#### *Bullish Squeeze Alert*

What is important about the pattern is that it shows that the downtrend has stalled, and some basing or stability has finally arrived. If the first day or two immediately following the pattern move up, then prices should break out to the upside. If the first day or two immediately following the pattern move down, then prices should break out to the downside.

#### *Bearish Squeeze Alert*

What is important about the pattern is that it shows that the uptrend has stalled, and some plateauing or stability has finally arrived. If the first day or two immediately following the pattern move up, then prices should break out to the upside. If the first day or two immediately following the pattern move down, then prices should break out to the downside.

Note: The pattern was created more as an alert than an actual pattern. You should wait to see which way prices go following the pattern before acting on it.

## Pattern Flexibility

### *Bullish Squeeze Alert*

In order to make sure that a good downtrend is in place, we require that the first day of the pattern be a black day, and that the day preceding the first day of the Squeeze Alert + pattern also be a black day.

### *Bearish Squeeze Alert*

In order to make sure that a good uptrend is in place, we require that the first day of the pattern be a white day, and that the day preceding the first day of the Squeeze Alert – pattern also be a white day.

## Pattern Breakdown

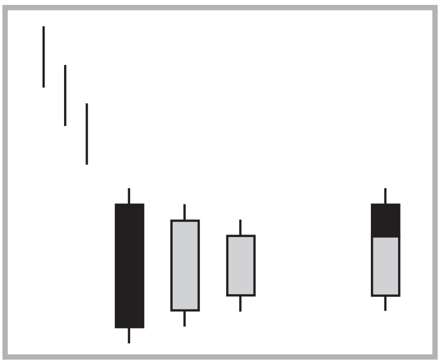


**Figure 3-149**

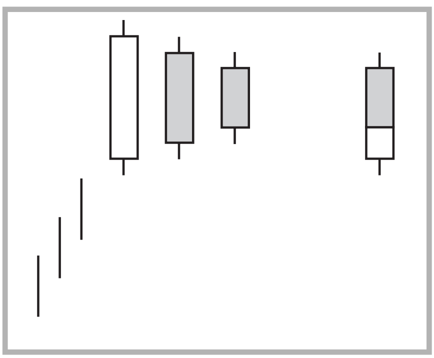


**Figure 3-150**

## Example

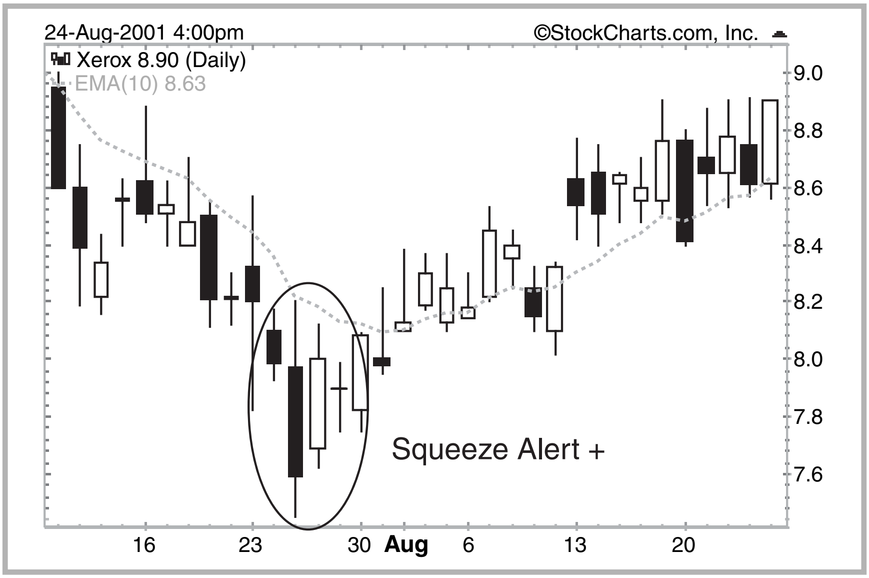



**Figure 3-151**

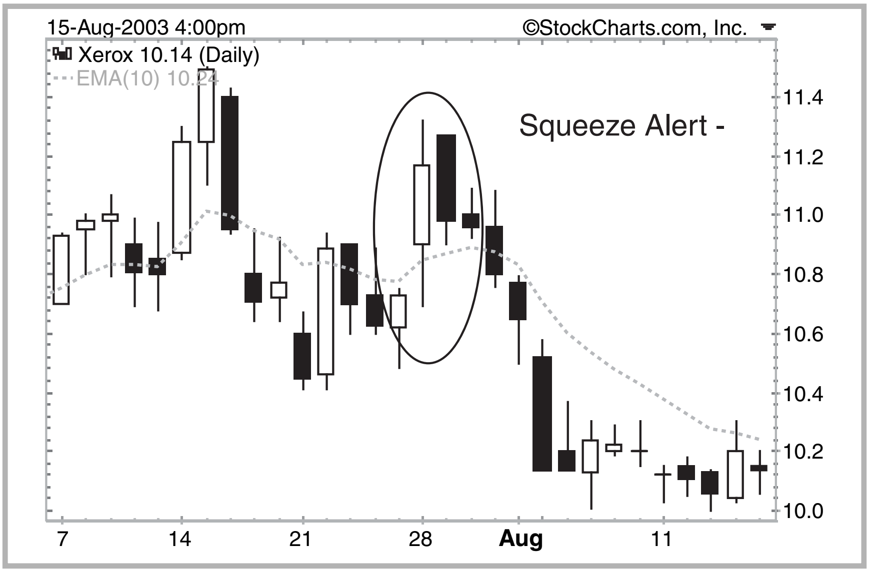



**Figure 3-152**

# FOUR-OR-MORE-DAY PATTERNS

## BREAKAWAY

| Pattern Name: | Breakaway + | | | | Type: | R+ |
|---|---|---|---|---|---|---|
| Japanese Name: | *hanare sante no shinte zukae* | | | | | |
| Trend Required: | Yes | Confirmation: | | | Suggested | |
| Frequency (MDaysBP): | 97,333 | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| % Winners: | 53 | 50 | 56 | 56 | 54 | 51 | 49 |
| Avg. % Gain: | 2.32 | 3.85 | 5.14 | 5.26 | 6.39 | 6.39 | 7.17 |
| % Losers: | 47 | 50 | 44 | 44 | 46 | 49 | 51 |
| Avg. % Loss: | -3.01 | -4.28 | -4.80 | -4.85 | -6.42 | -6.14 | -6.63 |
| Net Profit / Net Loss: | -0.16 | -0.21 | 0.80 | 0.84 | 0.46 | 0.21 | 0.13 |

| Pattern Name: | Breakaway - | | | | Type: | R- |
|---|---|---|---|---|---|---|
| Japanese Name: | *hanare sante no shinte zukae* | | | | | |
| Trend Required: | Yes | Confirmation: | | | Suggested | |
| Frequency (MDaysBP): | 97,333 | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| % Winners: | 49 | 50 | 44 | 52 | 56 | 55 | 56 |
| Avg. % Gain: | 2.40 | 3.07 | 4.44 | 4.08 | 4.40 | 5.07 | 5.45 |
| % Losers: | 51 | 50 | 56 | 48 | 44 | 45 | 44 |
| Avg. % Loss: | -2.75 | -3.30 | -3.51 | -3.84 | -4.10 | -4.52 | -4.59 |
| Net Profit / Net Loss: | -0.20 | -0.11 | -0.02 | 0.30 | 0.69 | 0.75 | 0.99 |

Figure 3-153

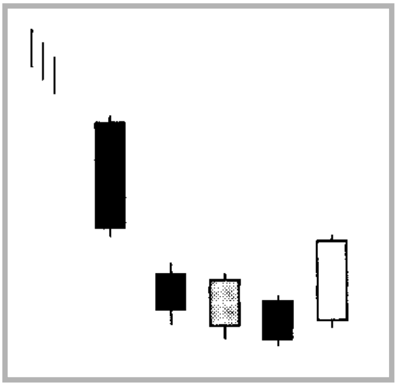
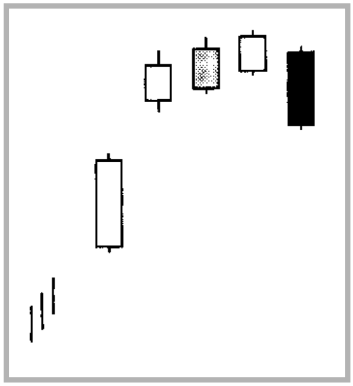


Figure 3-154



## Commentary

### *Bullish Breakaway*

The bullish Breakaway pattern comes during a downtrend and represents an acceleration of selling to a possible oversold position. The pattern starts with a long black day followed by another black day whose body gaps down (Figure 3-153). After the down gap, the next three days set consecutively lower prices. All days in this pattern are black, with the exception of the third day, which may be either black or white. The three days after the gap are similar to the Three Black Crows in that their highs and lows are each consecutively lower. The last day completely erases the small black days and closes inside the gap between the first and second days.

### *Bearish Breakaway*

The bearish Breakaway pattern involves a gap in the direction of the trend followed by three consecutively higher-price days (Figure 3-154). In an uptrend, a long white day is formed. Then the next day, prices gap upward to form another white day. This is followed by two more days that set higher prices. The color of the days should be white with only one exception: the third day of the pattern, or the second day after the gap, may be either black or white as long as a new high price has been made. The low prices set in the three days after the gap should also be higher than each previous day's low price. The idea of this pattern is that prices have accelerated in the direction of the trend and an overbought situation is developing. The last day sets up the trend reversal by closing inside the gap of the first and second days.

Japanese literature does not discuss a bearish version of the Breakaway pattern. I decided to test such a pattern and have found that it works quite well. See Chapter 6 for results.

## Rules of Recognition

1. The first day is a long day with color representing the current trend.
2. The second day is the same color and the body gaps in the direction of the trend.
3. The third and fourth days continue the trend direction, with closes consecutively greater in the direction of trend. It is better if the third day is white for the bullish case and black for the bearish case.
4. The fifth day is a long opposite-color day that closes inside the gap caused by the first and second days.

## Scenarios and Psychology behind the Pattern

It is important to realize what is being accomplished here: the trend has accelerated with a big gap and then starts to fizzle, but it still moves in the same direction. The slow deterioration of the trend is quite evident from this pattern. Finally, a burst in the opposite direction completely recovers the previous three days' price action. What causes the reversal implication is that the gap has not been filled. A short-term reversal has taken place.

### Pattern Flexibility

Because this is a complex pattern, it is difficult to discuss flexibility. A long as the basic premise is maintained, this pattern can offer some flexibility. There could be more than three days after the gap as long as the last day of the pattern closes inside the initial gap. It is also possible to have at least two days after the gap.

### Pattern Breakdown

The bullish Breakaway pattern reduces into a possible Hammer line (Figure 3-155). The lower shadow must be twice the length of the body for it to qualify as a Hammer. This is quite possible if the gap in the second day is large and followed by significantly lower prices on days three and four. This, of course, supports the pattern.

The bearish Breakaway pattern reduces to a long candle line with a white body at the lower end of its range (Figure 3-156). Chances are that this would not be a Shooting Star because of the large gap on the second day and the higher prices that followed. It seems that the bearish Breakaway would require further confirmation before selling.

**Figure 3-155**

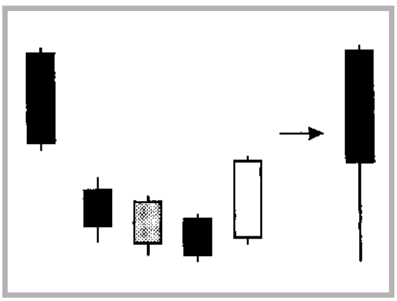
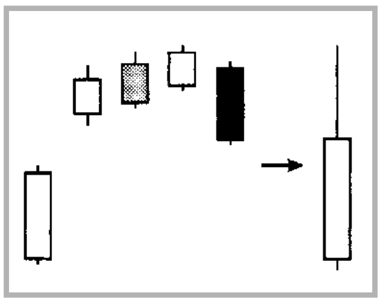


**Figure 3-156**



### Related Patterns

Because of this pattern's complexity, there are no related patterns.

## Examples

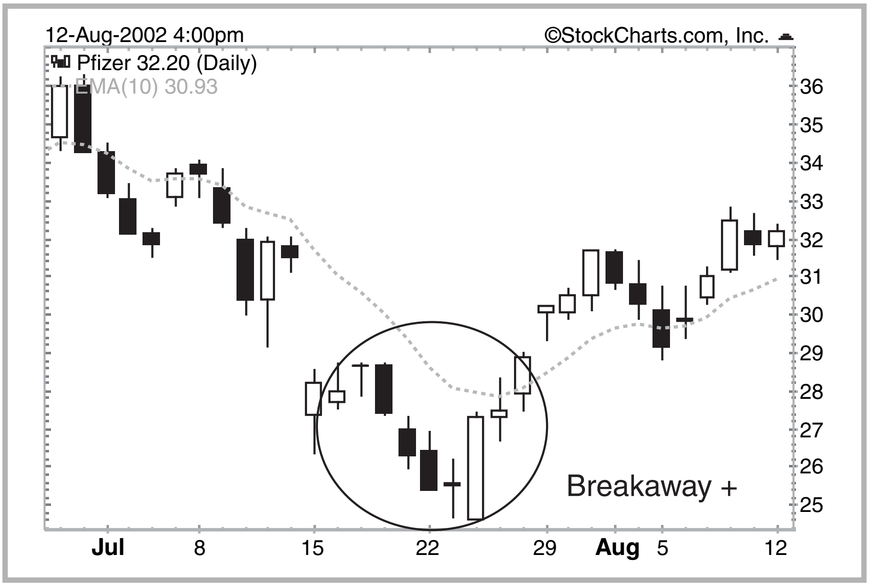



**Figure 3-157A**

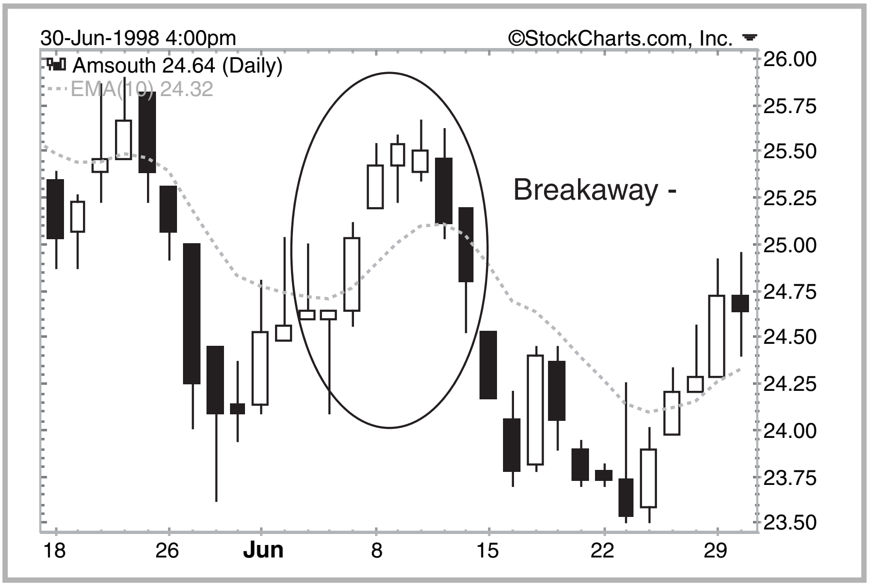
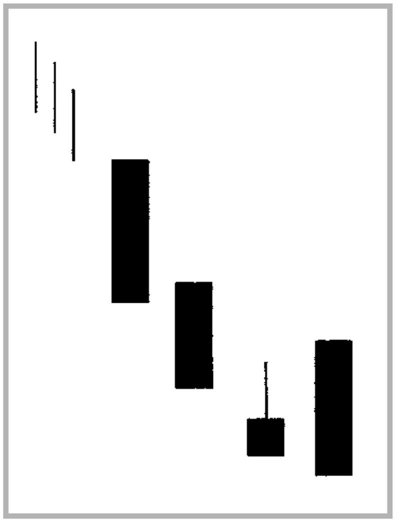



**Figure 3-157B**

## CONCEALING BABY SWALLOW

| Pattern Name: | Concealing Baby Swallow + | | | | Type: R+ | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *kotsubame tsutsumi* | | | | | | |
| Trend Required: | Yes | | Confirmation: | | No | | |
| Frequency (MDaysBP): | 59,109 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 54 | 55 | 53 | 52 | 52 | 53 | 56 |
| **Avg. % Gain:** | 3.13 | 4.63 | 6.43 | 7.47 | 8.52 | 8.55 | 8.63 |
| **% Losers:** | 46 | 45 | 47 | 48 | 48 | 47 | 44 |
| **Avg. % Loss:** | -3.75 | -5.33 | -5.20 | -5.73 | -6.63 | -6.76 | -7.78 |
| **Net Profit / Net Loss:** | -0.05 | 0.10 | 0.91 | 1.08 | 1.17 | 1.42 | 1.32 |

**Figure 3-158**



### Commentary

Two Black Marubozu days support the strength of the downtrend (Figure 3-158). On the third day, the downtrend begins to deteriorate, with a period of trading above the open price. This is especially important because the open was gapped down from the previous day's close. The fourth day completely engulfs the third day, including the upper shadow. Even though the close is at a new low, the velocity of the previous downtrend has eroded significantly and shorts should be protected.

### Rules of Recognition

1. Two Black Marubozu days make up the first two days of the pattern.
2. The third day is black with a down gap open. However, this day trades into the body of the previous day, producing a long upper shadow.
3. The fourth black day completely engulfs the third day, including the shadow.

### Scenarios and Psychology behind the Pattern

Any time a downtrend can continue with two Black Marubozu days, the bears must be excited. Then on the third day, the open is gapped down, which also adds to the excitement. However, trading during this day goes above the close of the previous day and causes some real concern about the downtrend, even though the day closes at or near its low. The next day opens significantly higher with a gap. After the opening, however, the market sells off and closes at a new low. This last day gives the shorts an excellent opportunity to cover their short positions.

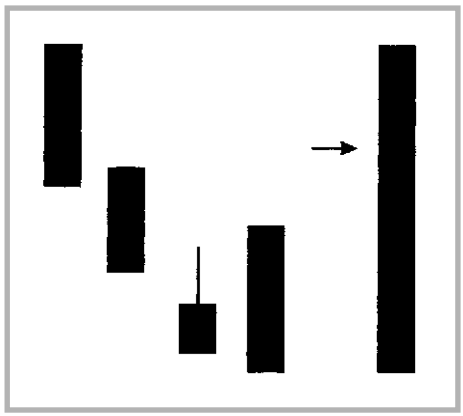
### Pattern Flexibility

This is a very strict pattern and does not allow much in the way of flexibility. The gap between the second and third day is necessary, and the upper shadow of the third day must extend into the previous day's range. To meet all of these requirements, only a few changes in relative size can be allowed.

## Pattern Breakdown

This pattern reduces to a long black day, which is almost always considered a bearish day (Figure 3-159). Because of this direct conflict, confirmation is required.

**Figure 3-159**



## Related Pattern

Concealing Baby Swallow resembles the Three Black Crow here, as did the Three Stars in the South pattern. However, the Three Black Crows is a bearish pattern and must be in an uptrend to be valid, whereas this pattern occurs in a downtrend. This pattern starts out much like the Ladder Bottom pattern.

## Example

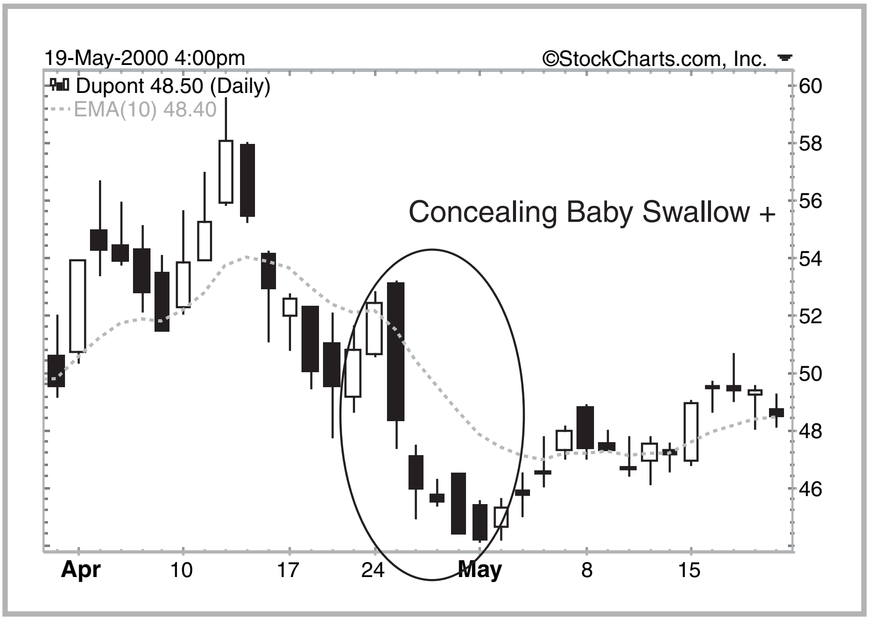
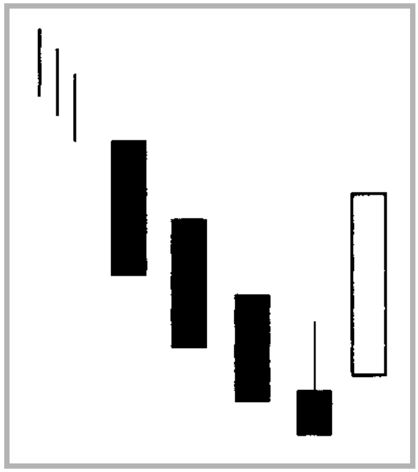



**Figure 3-160**

## LADDER BOTTOM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Ladder Bottom + | | | | | **Type:** R+ | |
| **Japanese Name:** | *hashigo gaeshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | No | | | |
| **Frequency (MDaysBP):** | 25,260 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 52 | 56 | 54 | 53 | 55 | 55 |
| **Avg. % Gain:** | 3.14 | 4.10 | 5.22 | 5.88 | 6.91 | 7.27 | 7.38 |
| **% Losers:** | 53 | 48 | 44 | 46 | 47 | 45 | 45 |
| **Avg. % Loss:** | -2.72 | -3.95 | -4.55 | -5.00 | -6.19 | -6.58 | -6.67 |
| **Net Profit / Net Loss:** | 0.02 | 0.26 | 0.95 | 0.82 | 0.72 | 1.05 | 1.07 |

Figure 3-161



## Commentary

After a reasonable downtrend with four consecutive lower closes and black days, the market trades higher than the open (Figure 3-161). This action is the first indication of buying even though the market still closes at a new low. On the next day, prices gap higher and never look back. The last day closes much higher than the previous day or two.

## Rules of Recognition

1. Three long black days with consecutive lower opens and closes occur much like the Three Black Crows pattern.
2. The fourth day is black with an upper shadow.
3. The last day is white with an open above the body of the previous day.

## Scenarios and Psychology behind the Pattern

A downtrend has been in place for some time and the bears are sure to be complacent. After a good move to the downside, prices trade above the open price and almost reach the high price of the previous day, but then they close at another new low. This action certainly will get the attention of the shorts and shows that the market will not go down forever. The shorts will rethink their position and, if profits are good, the next day they will sell. This action causes a gap up on the last day of the pattern and the close is considerably higher. If volume is high on the last day, a trend reversal has probably occurred.

## Pattern Flexibility

The four black days of the Ladder Bottom pattern may or may not be long, but consecutively lower closes must occur. The last day must be white and may be either long or short, as long as the close is above the previous day's high.

## Pattern Breakdown

The Ladder Bottom reduces to Hammer pattern, which supports its bullish implications.

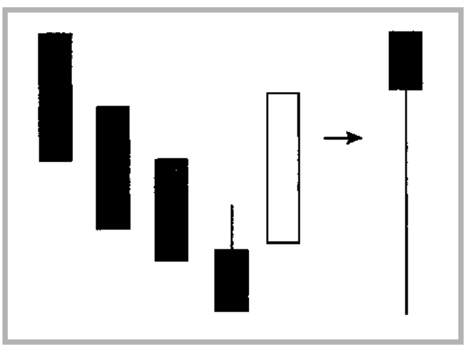


**Figure 3-162**

## Related Patterns

The Ladder Bottom starts out just like the Concealing Baby Swallow pattern. The first three days also resemble the Three Black Crows pattern except that a downtrend is in place.

## Example

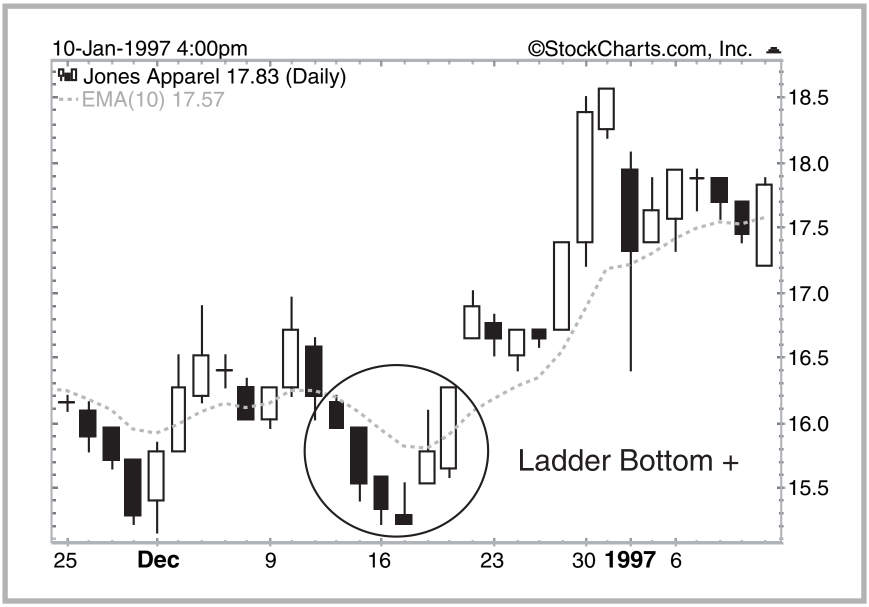



**Figure 3-163**

## LADDER TOP

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Ladder Top - | | | | **Type:** R- | | |
| **Japanese Name:** | *hashigo teppen* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Suggested | | |
| **Frequency (MDaysBP):** | 24,830 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 50 | 48 | 49 | 51 | 51 | 50 | 49 |
| **Avg. % Gain:** | 2.41 | 3.54 | 3.99 | 4.30 | 4.53 | 4.94 | 5.10 |
| **% Losers:** | 50 | 52 | 51 | 49 | 49 | 50 | 51 |
| **Avg. % Loss:** | -2.14 | -2.89 | -3.68 | -4.24 | -4.91 | -5.05 | -5.33 |
| **Net Profit / Net Loss:** | 0.14 | 0.20 | 0.09 | 0.12 | -0.12 | -0.08 | -0.18 |

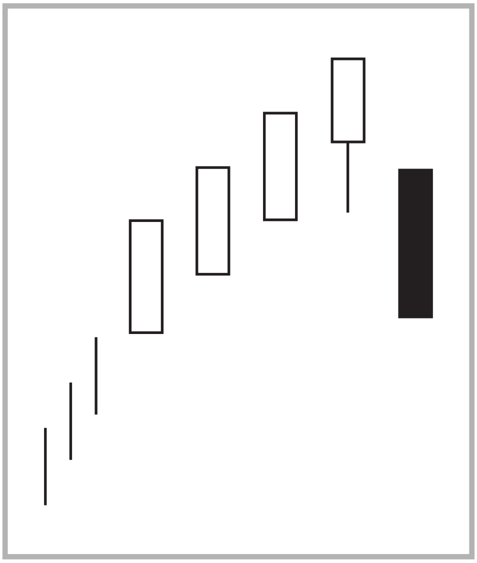


**Figure 3-164**

### Commentary

The Ladder Top pattern is a five-day bearish reversal pattern. It was created as the bearish counterpart to the Ladder Bottom pattern.

## Rules of Recognition

1. The pattern begins with three white days with consecutively higher opens and closes.
2. The fourth day is also a white day with a lower shadow that extends down well into the third day.
3. The fifth day is a black day that opens below the body of the fourth day and then closes below the low of the fourth day.

## Scenarios and Psychology behind the Pattern

The Ladder Top pattern starts with three white days that all occur in an uptrend. The midpoint value of each white day is above a 10-period moving average. The three white days have consecutively higher tops and bottoms. The bulls are sure to be complacent at this point.

The fourth day is also a white day, but it has a lower shadow that extends down well into the prior day. Specifically, the low of the fourth day must be lower than the midpoint value of the third day. And, although the fourth day closes higher than the third day, in most cases, the fourth day will show that the strength of the uptrend is weakening. The action of the fourth day should certainly get the attention of the bulls. If their profits are good, the next day the bulls should sell.

## Pattern Flexibility

Note: The four white days do not have any length of day or length of body requirements, apart from the lower shadow requirement of the fourth day (the lower shadow must occupy more than 40% of the high-low range of the fourth day). Therefore, one or more (or even all) of the four days may have small real bodies with long upper and/or lower shadows. The fourth day may even have an upper shadow if it has a small real body. All that is required of the four white days is that they have consecutively higher opens and closes.

The fifth day is a black day that gaps way down to open below the previous day's open. This fifth day then closes below the previous day's low. Note: The fifth day does not have any length of day or length of body requirements. Therefore, the fifth day is not required to have a long real body.

For this pattern, you should also require that the fifth day close above the low of the first white day. You do not want the fifth day to recover all of the first four days' price action.

## Pattern Breakdown

The Ladder Top pattern reduces to a Shooting Star line, which supports the bearishness of the pattern. If the price advance made by the four white days is quite significant, then the pattern reduces to a long white real body with a short upper shadow.

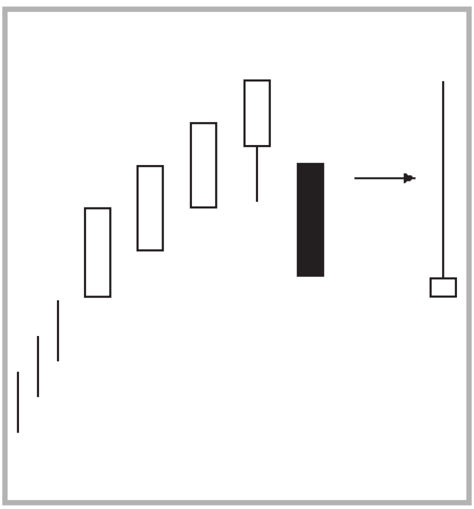


**Figure 3-165**

## Related Patterns

The Ladder Top pattern is similar to the Belt Hold pattern. Both patterns start with four white days that occur in an uptrend, followed by a fifth day that is black. The strength of the Belt Hold pattern comes from the length of the black day, plus the fact that the black day opened on its high. The strength of the Ladder Top pattern comes from the weakening uptrend (as evidenced by the fourth day), followed by the gap down opening of the black day.

## Example

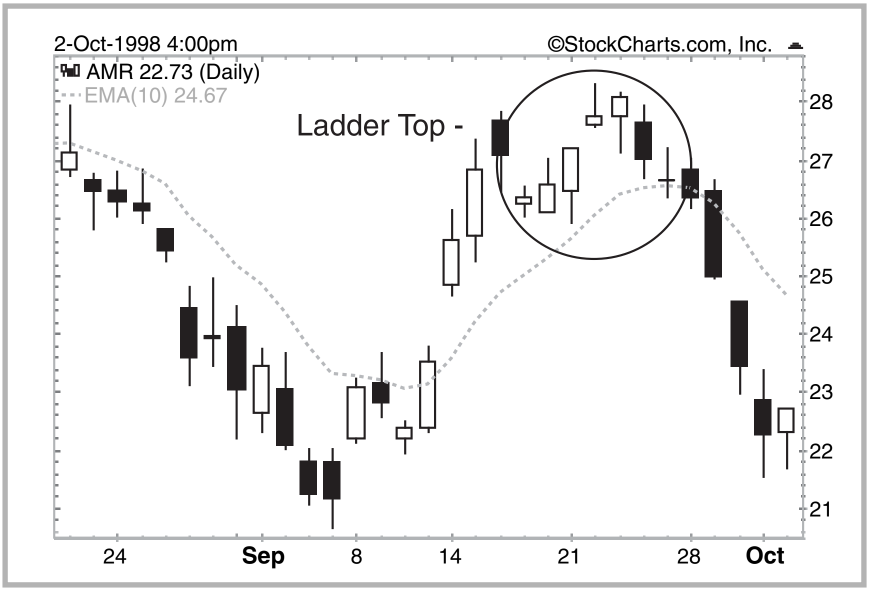



**Figure 3-166**

## AFTER BOTTOM GAP UP

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | After Bottom Gap Up + | | | | **Type:** R+ | | |
| **Japanese Name:** | *tanizoko agari* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 148,980 | Extremely Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 51 | 58 | 51 | 51 | 50 | 50 |
| **Avg. % Gain:** | 3.06 | 3.04 | 3.47 | 4.01 | 4.24 | 5.06 | 5.58 |
| **% Losers:** | 48 | 49 | 42 | 49 | 49 | 50 | 50 |
| **Avg. % Loss:** | -2.45 | -4.04 | -4.81 | -4.84 | -5.81 | -6.66 | -7.89 |
| **Net Profit / Net Loss:** | 0.41 | -0.40 | -0.04 | -0.35 | -0.67 | -0.78 | -1.09 |

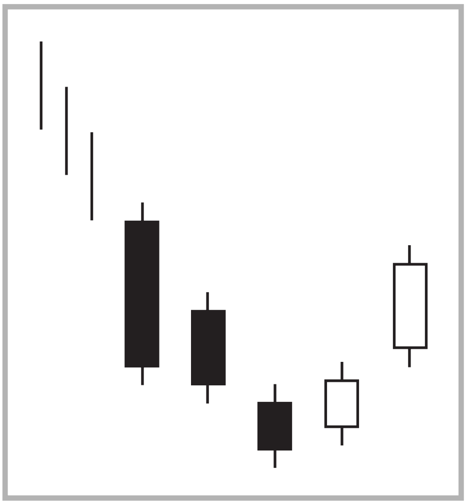


**Figure 3-167**

### Commentary

The After Bottom Gap Up pattern is a five-day bullish reversal pattern.

## Rules of Recognition

1. The pattern begins with a long black day that occurs during a downtrend.
2. The next two days are also black days, and each one closes lower than the previous day's close.
3. The third day gaps down and opens below the close of the second day.
4. The fourth day is a long white day.
5. The fifth day is another long white day that gaps upward to open above the previous day's close.

## Scenarios and Psychology behind the Pattern

All five days of this pattern are long days with long bodies. The pattern begins with a long black day that occurs during a downtrend. The next two days are also black days, and each one closes lower than the previous day's close. This creates a market with an extended down move. In fact, the third day actually gaps down and opens below the close of the second day. The fourth day is a long white day that shows there might be some weakness finally to the extended decline. The fifth day is another long white day that gaps upward to open above the previous day's close. The fifth day closes near its highs, thereby creating a long white real body. It now appears that the market overextended itself to the downside, and a reversal of the prior trend has begun.

## Pattern Flexibility

For this pattern, you should also require that the fifth day close below the high of the first day. You don't want the last two days to recover all of the first three days' price action.

According to Sakata's Method, after a market bottom, you should sell on the third gap up. At that point, on the third gap up, Sakata's Method recommends selling because of the conflict of orders and the possibility of reaching overbought conditions soon.

The gap up in this pattern would be considered the first gap up. Should that gap up be followed by two more consecutive gap ups then, according to Sakata's Method, you should then sell a long position.

Note: This also requires that the gap between the two real bodies of any gap up or gap down pair of candlestick lines be greater than 10% of the high-low range of the first day.

## Pattern Breakdown

This five-day pattern reduces to a bullish Hammer. This supports the bullish reversal of the After Bottom Gap Up pattern.

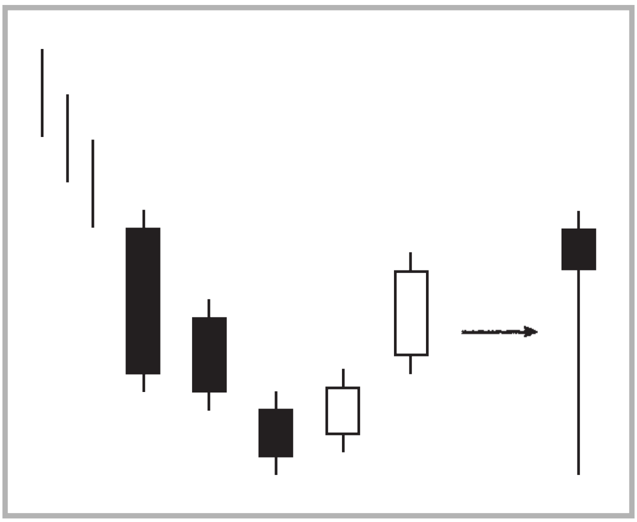


**Figure 3-168**

## Example

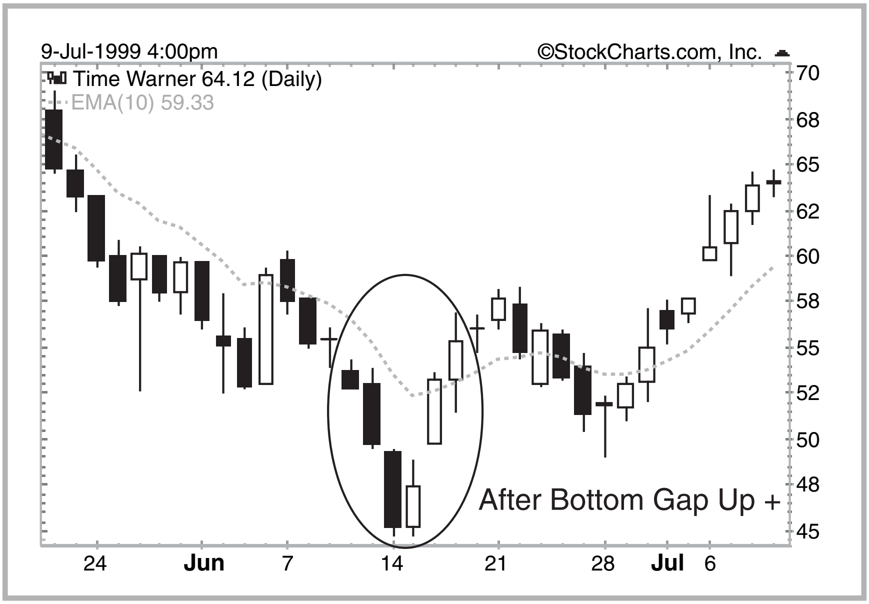



**Figure 3-169**

## AFTER TOP GAP DOWN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | After Top Gap Down - | | | | | **Type:** | R- |
| **Japanese Name:** | *yama nobotta ato ochiru* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 165,909 | Extremely Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 38 | 37 | 41 | 41 | 40 | 43 | 49 |
| **Avg. % Gain:** | 2.97 | 3.30 | 2.82 | 4.76 | 5.02 | 5.08 | 4.33 |
| **% Losers:** | 62 | 63 | 59 | 59 | 60 | 57 | 51 |
| **Avg. % Loss:** | -3.32 | -4.69 | -4.01 | -4.01 | -4.33 | -5.05 | -7.04 |
| **Net Profit / Net Loss:** | -0.84 | -1.73 | -1.20 | -0.42 | -0.62 | -0.68 | -1.45 |

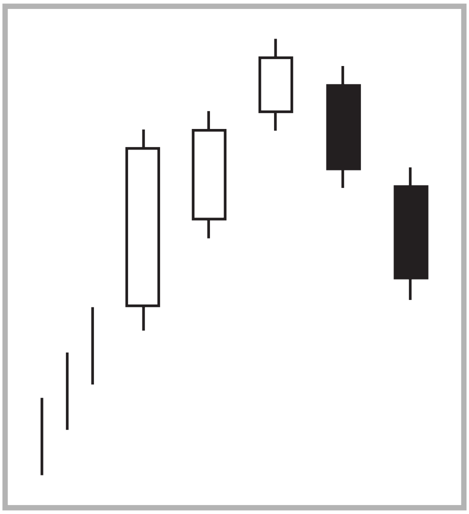


**Figure 3-170**

## Commentary

The After Top Gap Down pattern is a five-day bearish reversal pattern.

## Rules of Recognition

1. The pattern begins with a long white day that occurs during an uptrend.
2. The next two days are also white days, and each one closes higher than the previous day's close.
3. The third day gaps up to open above the second day's close.
4. The fourth day is a long black day.
5. The fifth day is another long black day that gaps downward to open below the previous day's close.

## Scenarios and Psychology behind the Pattern

All five days of this pattern are long days with long bodies. The pattern begins with a long white day that occurs during an uptrend. The next two days are also white days, and each one closes higher than the previous day's close. This creates a market with an extended up move. In fact, the third day gaps up to open above the second day's close. The fourth day is a long black day that shows there might be some weakness finally to the extended rally. The fifth day is another long black day that gaps downward to open below the previous day's close. The fifth day closes near its lows, thereby creating a long black real body. It now appears that the market overextended itself to the upside, and a reversal of the prior trend has begun.

## Pattern Flexibility

For this pattern, you should also require that the fifth day close above the low of the first day. You don't want the last two days to recover all of the first three days' price action.

According to Sakata's Method, after a market top, you should cover a short position on the third gap down. At that point, on the third gap down, Sakata's Method recommends covering because of the conflict of orders and the possibility of reaching oversold conditions soon.

The gap down in this pattern would be considered the first gap down. Should that gap down be followed by two more consecutive gap downs then, according to Sakata's Method, you should then cover a short position.

Note: This also requires that the gap between the two real bodies of any gap up or gap down pair of candlestick lines be greater than 10% of the high-low range of the first day.

## Pattern Breakdown

This five-day pattern reduces to a bearish Shooting Star. This supports the bearish reversal of the After Top Gap Down pattern.

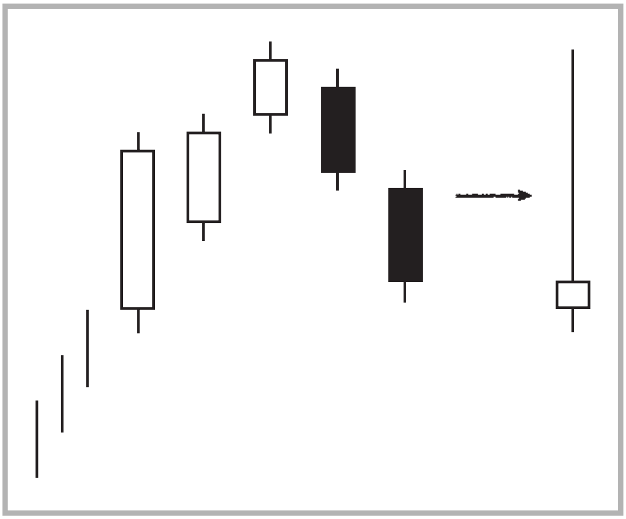


**Figure 3-171**

## Example

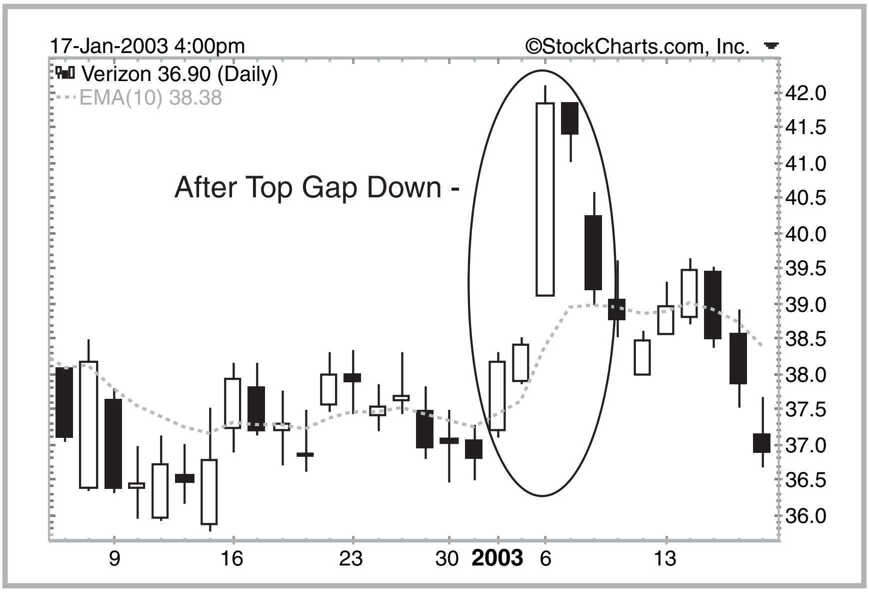


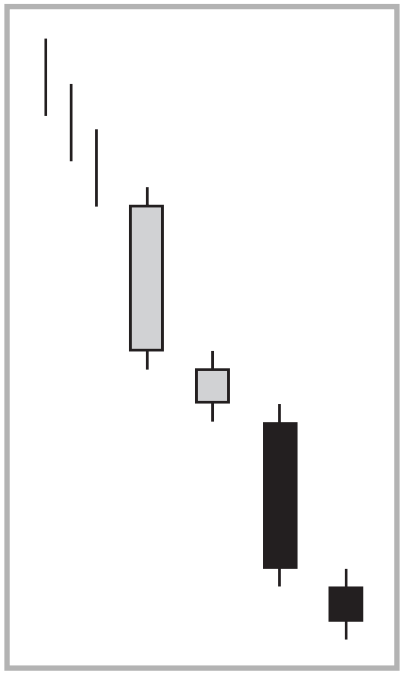

**Figure 3-172**

## THREE GAP DOWNS

| Pattern Name: | 3 Gap Downs + | | | | Type: R+ | |
|---|---|---|---|---|---|---|
| Japanese Name: | *mittsu no aki kudari* | | | | | |
| Trend Required: | Yes | Confirmation: | | No | | |
| Frequency (MDaysBP): | 3,606 | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 50 | 50 | 51 | 50 | 50 | 51 | 52 |
| Avg. % Gain: | 3.13 | 4.39 | 5.01 | 5.78 | 6.47 | 6.87 | 7.28 |
| % Losers: | 50 | 50 | 49 | 50 | 50 | 49 | 48 |
| Avg. % Loss: | -2.81 | -3.72 | -4.53 | -5.08 | -5.42 | -5.98 | -6.42 |
| Net Profit / Net Loss: | 0.13 | 0.29 | 0.31 | 0.36 | 0.51 | 0.61 | 0.75 |

**Figure 3-173**



## Commentary

The Three Gap Downs pattern is a four-day bullish reversal pattern. The pattern is what its name says it is—three consecutive days that each gaps lower on the open. Normally, a Gap Down pattern would be an indication of lower prices to come but, after three gap downs, the market has become very oversold and is ready for a break in, or reversal of, the current downtrend.

## Rules of Recognition

1. The first day of the pattern can be any color—it really just serves as the first day of the first gap down.
2. The second day can also be any color, so long as its real body gaps down and away from the first day's real body.
3. The last two days must be long days with long bodies.
4. The last two days must also be black.
5. The real body of each of the last two days gaps down and away from the real body of the prior day.

## Scenarios and Psychology behind the Pattern

The third day then opens below the bottom of the prior day. Prices decline steadily all day long and close near their lows. The next day, the market gaps lower on the open for the third consecutive day. Prices trade lower all day and again close near their lows. The market has now had three gap downs in a row. According to Sakata's Method, you should cover a short position on the third gap down. At that point, on the third gap down, Sakata's Method recommends covering because of the conflict of orders and the possibility of reaching oversold conditions soon.

## Pattern Flexibility

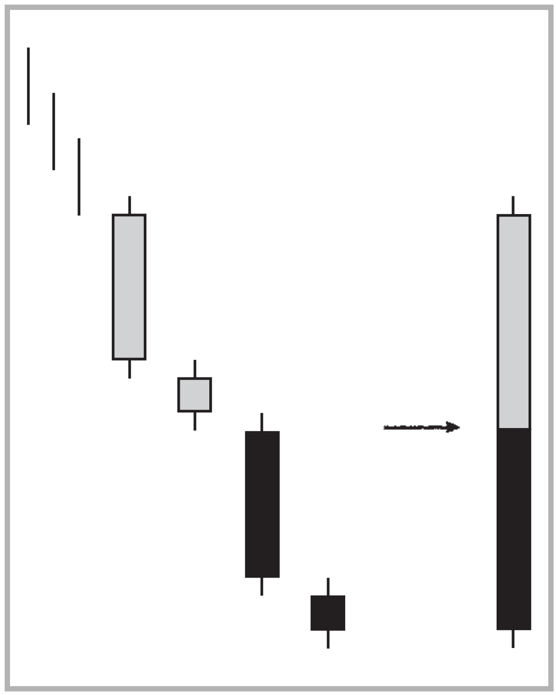
For this pattern, you should require that the market be in a downtrend by the second day of the pattern. Therefore, the midpoint of the range of the second day will be below a 10-period moving average.

Note: This also requires that the three gaps between the four real bodies of this pattern be greater than 10% of the high-low range of the first day of any pair of real bodies.

## Pattern Breakdown

Because of the flexibility of this pattern, the breakdown analysis is not conclusive.

Figure 3-174



## Example

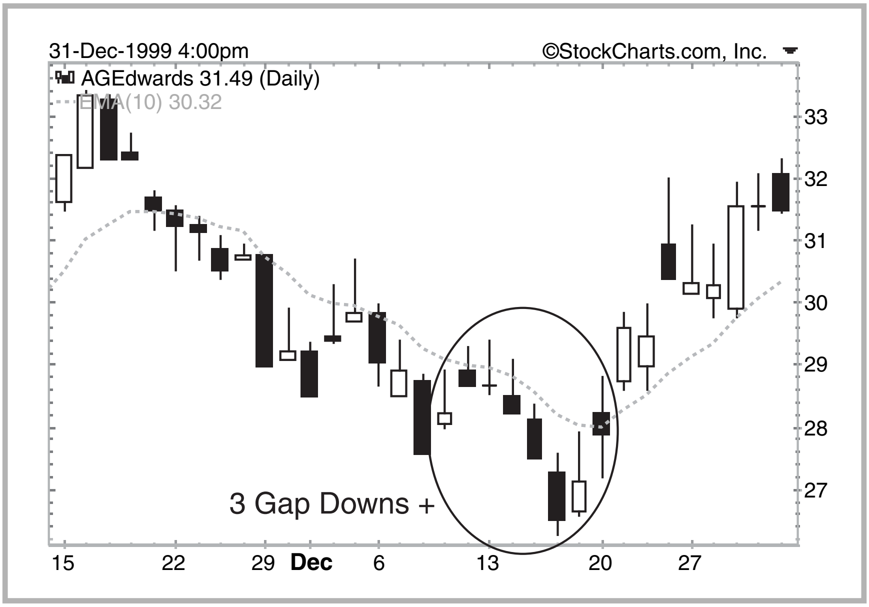
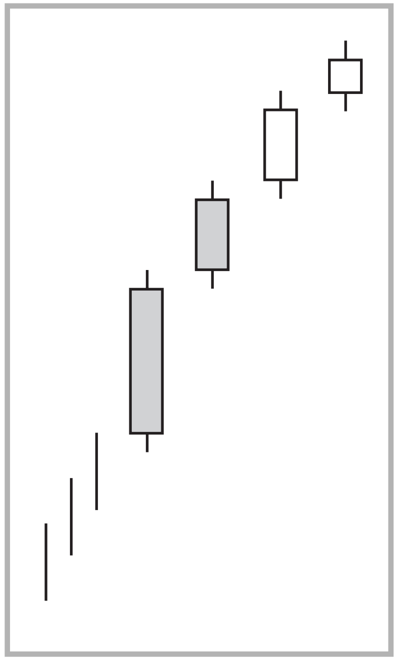



**Figure 3-175**

## THREE GAP UPS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | 3 Gap Ups - | | | | **Type:** R- | | |
| **Japanese Name:** | *mittsu no aki agari* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Suggested | | | |
| **Frequency (MDaysBP):** | 2,425 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 50 | 51 | 52 | 52 | 53 | 52 | 52 |
| **Avg. % Gain:** | 2.76 | 3.81 | 4.48 | 5.01 | 5.49 | 5.99 | 6.38 |
| **% Losers:** | 50 | 49 | 48 | 48 | 47 | 48 | 48 |
| **Avg. % Loss:** | -2.95 | -3.87 | -4.48 | -5.06 | -5.69 | -6.11 | -6.60 |
| **Net Profit / Net Loss:** | -0.11 | 0.06 | 0.19 | 0.18 | 0.18 | 0.18 | 0.09 |

Figure 3-176



## Commentary

The Three Gap Ups pattern is a four-day bearish reversal pattern. The pattern is what its name says it is—three consecutive days that each gap higher on the open. Normally, a Gap Up pattern would be an indication of higher prices to come but, after three gap ups, the market has become very overbought and is ready for a break in, or reversal of, the current uptrend.

## Rules of Recognition

1. The first day of the pattern can be any color—it really just serves as the first day of the first gap up.

2. The second day can also be any color, so long as its real body gaps above and away from the first day's real body.
3. The last two days must be long days with long bodies. The last two days must also be white.
4. The real body of each of the last two days gaps up and away from the real body of the prior day.

## Scenarios and Psychology behind the Pattern

For this pattern, we require that the market be in an uptrend by the second day of the pattern. Therefore, the midpoint of the range of the second day will be above a 10-period moving average.

The third day then opens above the top of the prior day. Prices climb steadily all day long and close near their highs. The next day, the market gaps higher on the open for the third consecutive day. Prices trade higher all day and again close near their highs. The market has now had three gap ups in a row. According to Sakata's Method, you should sell a long position on the third gap up. At that point, on the third gap up, Sakata's Method recommends selling because of the conflict of orders and the possibility of reaching overbought conditions soon.

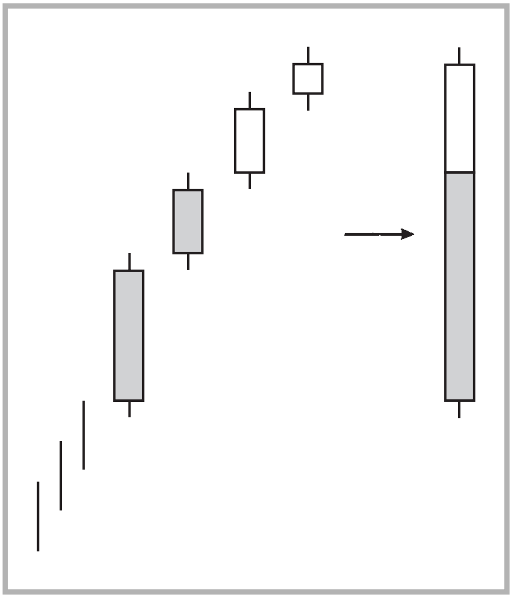
## Pattern Flexibility

Note: This also requires that the three gaps between the four real bodies of this pattern be greater than 10% of the high-low range of the first day of any pair of real bodies.

## Pattern Breakdown

Because of the flexibility of this pattern, the breakdown analysis is not conclusive.

Figure 3-177



## Example

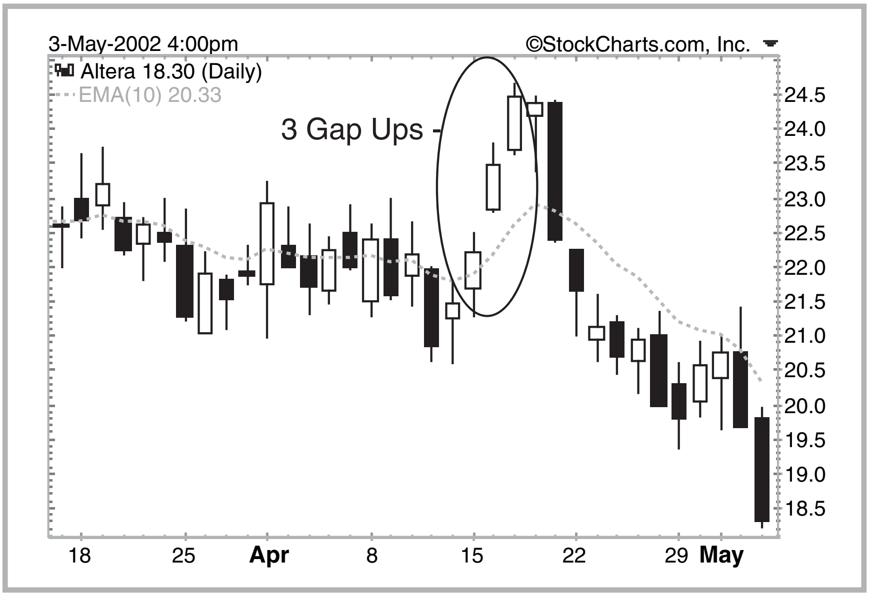



Figure 3-178

CHAPTER FOUR

# Continuation Patterns

Continuation Patterns are included in a separate chapter from reversal patterns only to make later reference easier. Keep in mind that once a pattern has been identified, it is suggesting a direction for future price movement. It really doesn't matter if that future price movement is the same as before or is a reversal. Continuation patterns, according to the Sakata Method, are a time of rest in the market. Whatever the pattern, you must make a decision on your current position, even if that decision is to stay where you are.

The format of discussion for this chapter is identical to that of the previous chapter (3) on reversal candle patterns. In condensed form, that format is

Pattern name

Pattern detail information box

Commentary

Graphic of classic pattern(s)

Rules of recognition

Scenarios / psychology behind the pattern

Pattern flexibility

Pattern breakdown

Related patterns

Examples

## CONTINUATION PATTERN INDEX

# TWO-DAY PATTERNS

## SEPARATING LINES

| **Pattern Name:** | Separating Lines + | | | | **Type:** | C+ |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *iki chigai sen* | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | No | |
| **Frequency (MDaysBP):** | 6,158 | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 44 | 44 | 45 | 47 | 47 | 47 | 46 |
| **Avg. % Gain:** | 3.78 | 4.85 | 5.52 | 5.87 | 6.62 | 7.09 | 7.60 |
| **% Losers:** | 56 | 56 | 55 | 53 | 53 | 53 | 54 |
| **Avg. % Loss:** | -2.87 | -3.30 | -3.89 | -4.42 | -4.71 | -4.86 | -5.22 |
| **Net Profit / Net Loss:** | 0.04 | 0.27 | 0.31 | 0.36 | 0.58 | 0.72 | 0.63 |

| **Pattern Name:** | Separating Lines - | | | | **Type:** | C- |
|---|---|---|---|---|---|---|
| **Japanese Name:** | *iki chigai sen* | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | |
| **Frequency (MDaysBP):** | 5,185 | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **% Winners:** | 40 | 42 | 43 | 43 | 44 | 45 | 43 |
| **Avg. % Gain:** | 2.81 | 3.57 | 4.10 | 4.66 | 5.11 | 5.31 | 5.59 |
| **% Losers:** | 60 | 58 | 57 | 57 | 56 | 55 | 57 |
| **Avg. % Loss:** | -4.36 | -5.20 | -5.59 | -6.12 | -6.31 | -6.95 | -7.34 |
| **Net Profit / Net Loss:** | -1.20 | -1.31 | -1.27 | -1.28 | -1.13 | -1.31 | -1.59 |

Figure 4-1

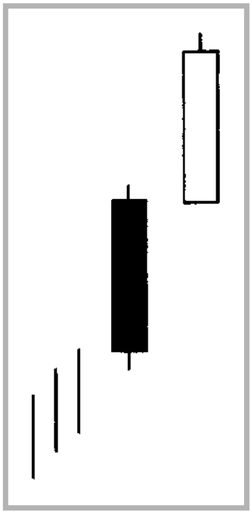
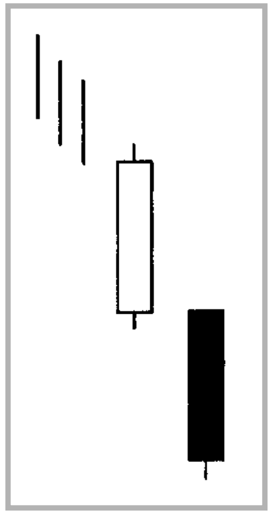


Figure 4-2



## Commentary

The Separating Lines have the same open and are opposite in color. They are similar, but opposite of the Meeting Lines. The second day of these patterns is a Belt Hold candlestick. The bullish pattern (Figure 4-1) has a white bullish Belt Hold and the bearish pattern (Figure 4-2) has a black bearish Belt Hold. *Ikichigaisen* means lines that move in opposite directions. Sometimes these are called Dividing (*furiwake*) Lines.

## Rules of Recognition

1. The first day is the opposite color of the current trend.
2. The second day is the opposite color of the first.
3. The two bodies meet in the middle, at the open price.

## Scenarios and Psychology behind the Pattern

An uptrend is in place when a long black day occurs. This is not normal for a strong market and will produce some skepticism. However, the next day opens much higher; in fact, it opens at the previous black day's opening price. Prices then move higher for the rest of the day and close higher, which suggests that the prior uptrend should now continue. This scenario is for the bullish Separating Line; the bearish scenario is quite similar, but opposite.

## Pattern Flexibility

Separating Lines should each be long lines: however, there is no requirement that this be so. Strong *furiwake* lines would be two long bodies without any shadows (*marubozu*) at the points where they meet.

## Pattern Breakdown

The bullish Separating Lines pattern reduces to a candle line with a white body and long lower shadow (Figure 4-3). This pattern is somewhat bullish and supports the bullish continuation. The bearish Separating Lines pattern reduces to a candle line with a black body near the lower portion of the range (Figure 4-4). This line can be considered bearish and therefore supports the bearish continuation pattern.

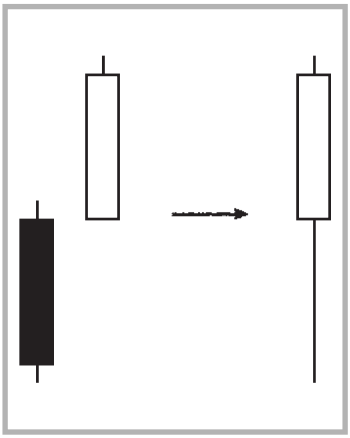


**Figure 4-3**

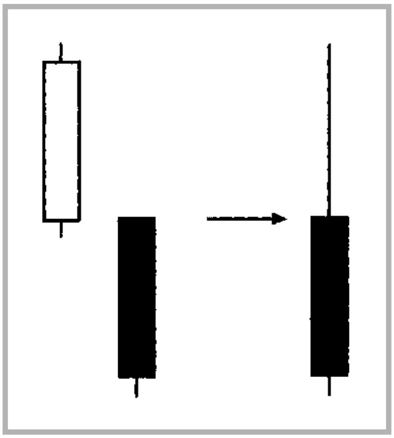


**Figure 4-4**

## Related Patterns

The Meeting Lines, which are not continuation patterns, but reversal patterns, are similar in concept.

## Examples

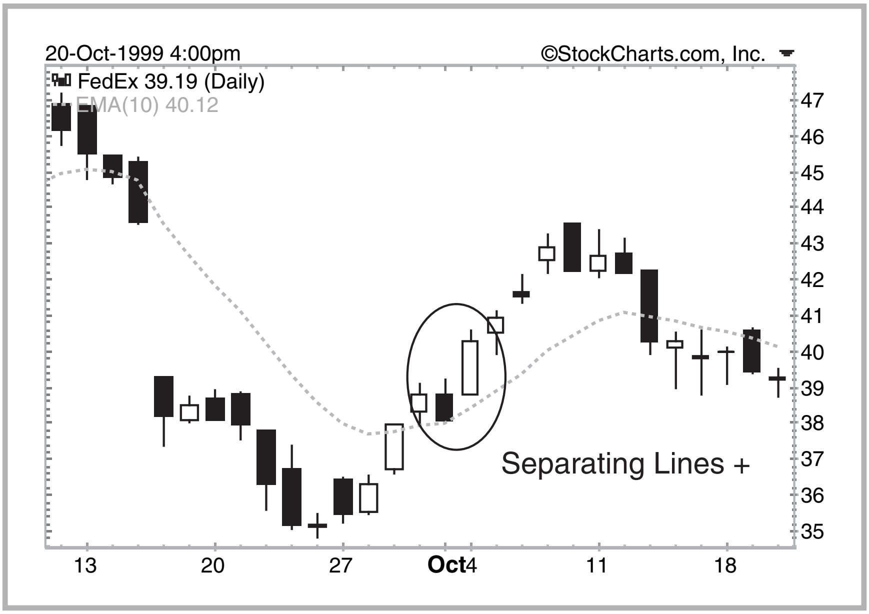



**Figure 4-5A**

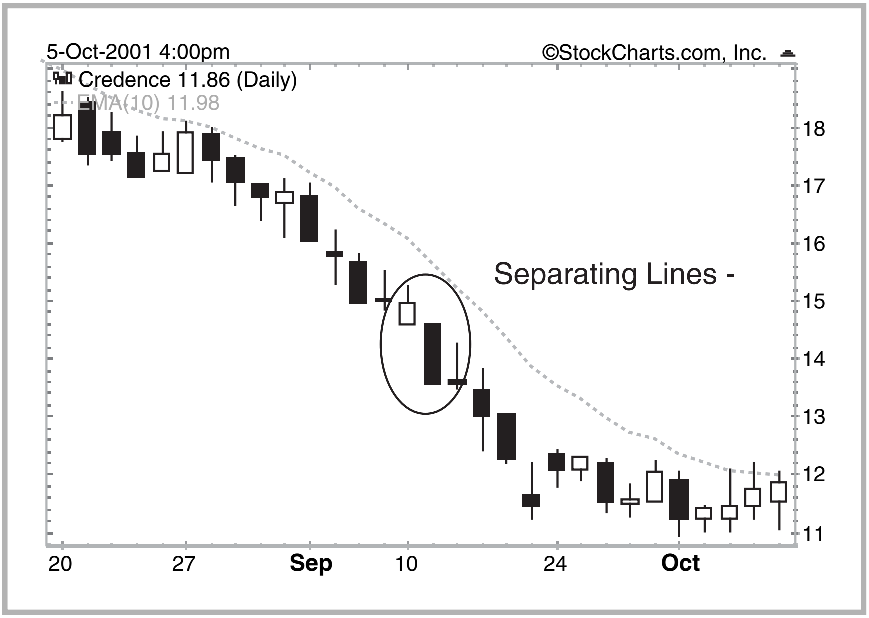



**Figure 4-5B**

## ON NECK

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | On Neck Line - | | | | **Type:** C- | | |
| **Japanese Name:** | *ate kubi* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Required | | |
| **Frequency (MDaysBP):** | 6,910 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 55 | 52 | 50 | 50 | 49 | 49 | 49 |
| **Avg. % Gain:** | 2.20 | 2.89 | 3.56 | 4.01 | 4.62 | 4.91 | 5.18 |
| **% Losers:** | 45 | 48 | 50 | 50 | 51 | 51 | 51 |
| **Avg. % Loss:** | -2.79 | -3.58 | -4.22 | -4.66 | -4.92 | -5.34 | -6.04 |
| **Net Profit / Net Loss:** | -0.05 | -0.21 | -0.27 | -0.34 | -0.27 | -0.34 | -0.51 |

| Pattern Name: | On Neck Line + | | | | | Type: C+ | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *ate kubi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | | No | | |
| Frequency (MDaysBP): | 6,615 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 52 | 48 | 49 | 49 | 47 | 49 | 48 |
| Avg. % Gain: | 2.12 | 2.99 | 3.66 | 4.13 | 4.63 | 5.20 | 5.70 |
| % Losers: | 48 | 52 | 51 | 51 | 53 | 51 | 52 |
| Avg. % Loss: | -2.10 | -2.64 | -3.10 | -3.59 | -3.84 | -4.12 | -4.53 |
| Net Profit / Net Loss: | 0.06 | 0.07 | 0.19 | 0.21 | 0.17 | 0.37 | 0.38 |

**Figure 4-6**

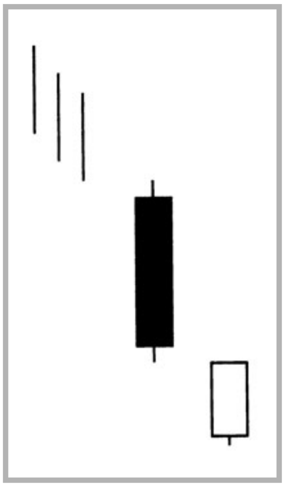
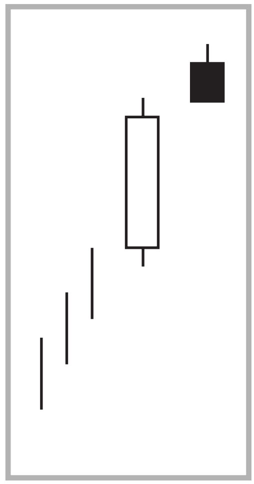


**Figure 4-7**



## Commentary

The bearish On Neck Line is an undeveloped version of the Piercing Line discussed in Chapter 3. A similar pattern is formed, except that the second day's white body only gets up to the previous day's low (Figure 4-6). Do not confuse this pattern with the Meeting Line pattern covered in Chapter 3.

The bullish On Neck Line pattern is a two-day bullish continuation pattern. It was created as a complement to the bearish On Neck Line.

Note: This pattern is rare.

## Rules of Recognition

### *Bearish On Neck Line*

1. A long black line is formed in a downtrend.
2. The second day is white and opens below the low of the previous day. This day does not need to be a long day or it might resemble the bullish Meeting Line.
3. The second day closes at the low of the first day.

### *Bullish On Neck Line*

1. The first day is a long white day that occurs during an uptrend.
2. The second day is black. It opens above the high of the previous day and then closes at the high of the previous day.

## Scenarios and Psychology behind the Pattern

### *Bearish On Neck Line*

The bearish On Neck Line usually appears during a decline. Bearishness is increased with the long black first day. The market gaps down on the second day, but cannot continue the downtrend. As the market rallies, it is stopped at the previous day's low price. This must be uncomfortable for the bottom fishers who go into the market that day. The downtrend should continue shortly.

### *Bullish On Neck Line*

The bullish On Neck Line pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. Bullishness is increased with the long white first day.

The market gaps up on the second day but cannot continue the advance. Although the market declines somewhat, it is stopped at the previous day's high. This must be uncomfortable for any shorts who got into the market that day. The uptrend should continue shortly.

## Pattern Flexibility

### *Bearish On Neck Line*

If the trading volume on the second day is high, the chance of the downward trend continuing is good.

### *Bullish On Neck Line*

Because the second day is a black day with little or no lower shadow, it is known as a Black Closing Marubozu. This requires that the range or length of the second day be smaller than the range or length of the first day. If the range of the second day is not restricted, and if the low of the second day is permitted to penetrate into the body of the first day, then the bullish On Neck Line continuation pattern would resemble the bearish Meeting Lines reversal pattern.

Both days of the bullish On Neck Line pattern have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

Do not confuse a long body requirement with a long day requirement. The second day has a long body. This means that the body of the second day occupies most of its range. The length of the second day is actually relatively short.

## Pattern Breakdown

### *Bearish On Neck Line*

The bearish On Neck Line pattern reduces to a fairly bearish black candlestick with a long lower shadow (Figure 4-7). This single candle line supports the bearishness of this continuation pattern.

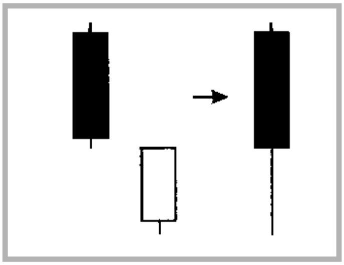


**Figure 4-8**

### *Bullish On Neck Line*

The bullish On Neck Line pattern reduces to a fairly bullish white candlestick line with a long upper shadow. Occurring in an uptrend, this line can be considered bullish and therefore supports the bullish continuation pattern.

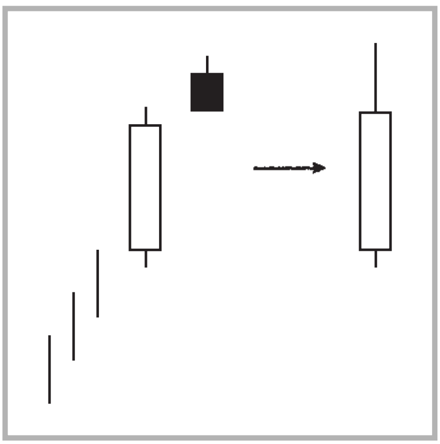


**Figure 4-9**

### Related Patterns

The bearish On Neck Line pattern is a weak beginning to a Piercing Line. See also the bearish In Neck Line and the bearish Thrusting Line.

Also, be careful not to confuse the bearish Meeting Lines reversal pattern with the bullish On Neck Line and bullish In Neck Line continuation patterns. All three patterns look very similar.

### Examples

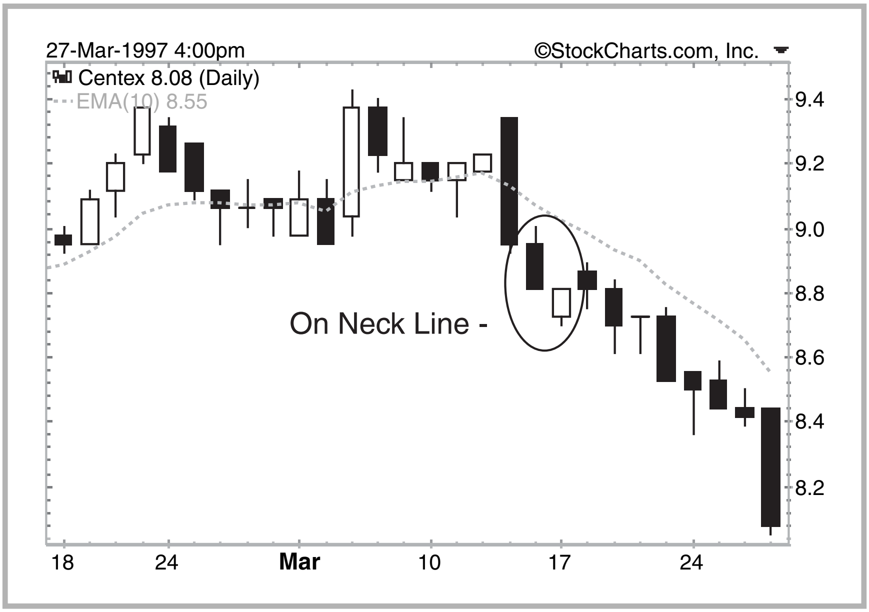



**Figure 4-10**

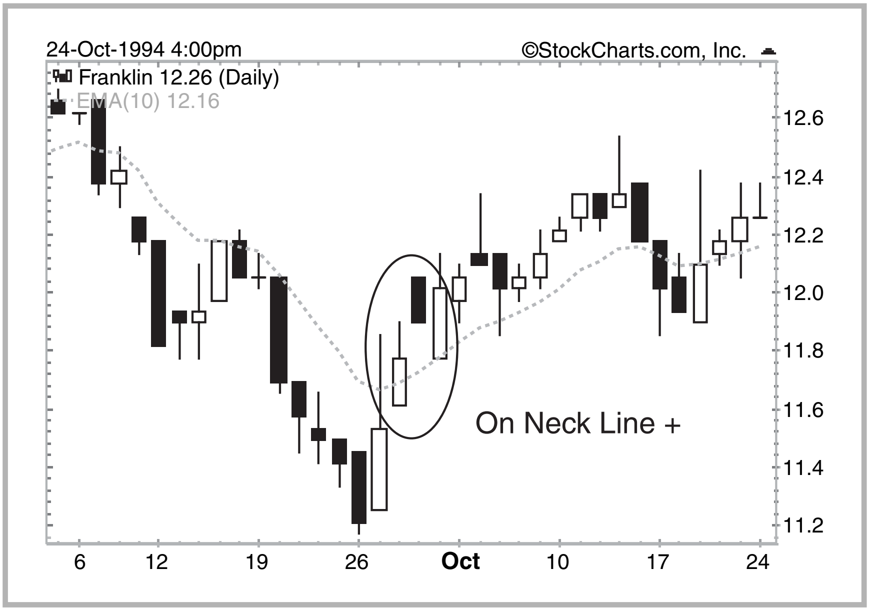



**Figure 4-11**

## IN NECK LINE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | In Neck Line - | | | | **Type:** C- | | |
| **Japanese Name:** | *iri kubi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 239,344 Extremely Rare | | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 47 | 51 | 49 | 44 | 51 | 39 | 44 |
| **Avg. % Gain:** | 2.18 | 2.49 | 4.89 | 5.96 | 5.85 | 6.70 | 6.22 |
| **% Losers:** | 53 | 49 | 51 | 56 | 49 | 61 | 56 |
| **Avg. % Loss:** | -2.35 | -3.75 | -4.77 | -5.04 | -5.55 | -5.34 | -5.86 |
| **Net Profit / Net Loss:** | -0.19 | -0.56 | -0.02 | -0.17 | 0.25 | -0.63 | -0.52 |

| Pattern Name: | In Neck Line + | | | | Type: C+ | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *iri kubi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | | Required | | |
| Frequency (MDaysBP): | 175,904 | Extremely Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 47 | 47 | 38 | 41 | 43 | 46 | 43 |
| Avg. % Gain: | 2.00 | 2.84 | 4.11 | 4.63 | 6.61 | 9.50 | 9.35 |
| % Losers: | 53 | 53 | 62 | 59 | 57 | 54 | 57 |
| Avg. % Loss: | -2.81 | -3.41 | -4.35 | -5.10 | -5.02 | -5.70 | -5.79 |
| Net Profit / Net Loss: | -0.54 | -0.46 | -1.09 | -1.12 | 0.01 | 1.17 | 0.67 |

**Figure 4-12**

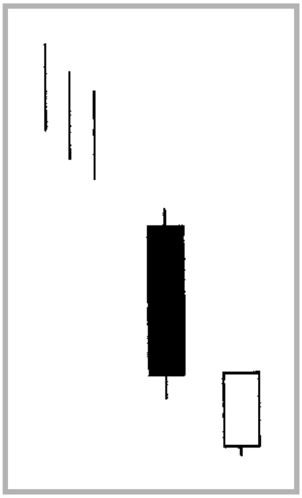
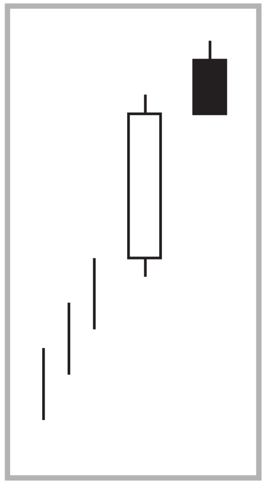


**Figure 4-13**



## Commentary

The bearish In Neck Line is also a modified or undeveloped version of the Piercing Line. The second day's white body closes near the close of the previous black day: at the lower part of the body (Figure 4-12). The actual definition requires that it close just inside the previous day's body, that is, slightly above the close. It is a higher close than the bearish On Neck Line, but not much. If the first day's close is also at its low (Closing Marubozu), the bearish In Neck and bearish On Neck Line are most probably the same.

The bullish In Neck Line pattern is a two-day bullish continuation pattern. It was created as the complement of the bearish In Neck Line.

## Rules of Recognition

### *Bearish In Neck Line*

1. A black line develops in a downtrend.
2. The second day is a white day with an opening below the first day's low.
3. The close of the second day is just barely into the body of the first day. For all practical purposes, the closes are equal.

### *Bullish In Neck Line*

1. The first day is a long white day that occurs during an uptrend.
2. The second day is black. It opens above the high of the previous day and then closes just barely into the body of the first day.

## Scenarios and Psychology behind the Pattern

### *Bearish In Neck Line*

The scenario is almost identical to the bearish On Neck Line, except that the downtrend may not continue quite as abruptly because of the somewhat higher close.

### *Bullish In Neck Line*

The bullish In Neck Line pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. Bullishness is increased with the long white first day.

The market gaps up on the second day but cannot continue the advance. The market declines on this second day and closes just barely into the body of the previous day. This scenario is very similar to the bullish On Neck Line pattern, except that the uptrend may not continue quite as abruptly because of the somewhat lower close in the bullish In Neck Line pattern.

## Pattern Flexibility

### *Bearish In Neck Line*

If the volume on the white day (second day) is heavy, the chance of the trend's continuing is good.

### *Bullish In Neck Line*

Because the second day is a black day with little or no lower shadow, it is known as a Black Closing Marubozu. This requires that the range or length of the second day be smaller than the range or length of the first day. If the range of the second day is not restricted, then the bullish In Neck Line continuation pattern would closely resemble the Bearish Meeting Lines reversal pattern.

Both days of the bullish In Neck Line pattern have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

Do not confuse a long body requirement with a long day requirement. The second day has a long body. This means that the body of the second day occupies most of its range. The length of the second day is actually relatively short.

## Pattern Breakdown

### *Bearish In Neck Line*

The bearish In Neck Line pattern reduces to a black candlestick with a long lower shadow (Figure 4-14). The fact that this single line is not at all bullish lends support for the bearish continuation of this pattern.

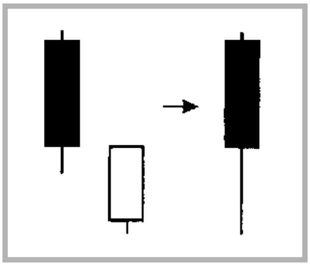


**Figure 4-14**

### *Bullish In Neck Line*

The bullish In Neck Line pattern reduces to a fairly bullish white candlestick line with a long upper shadow. Occurring in an uptrend, this line can be considered bullish and therefore supports the bullish continuation pattern.

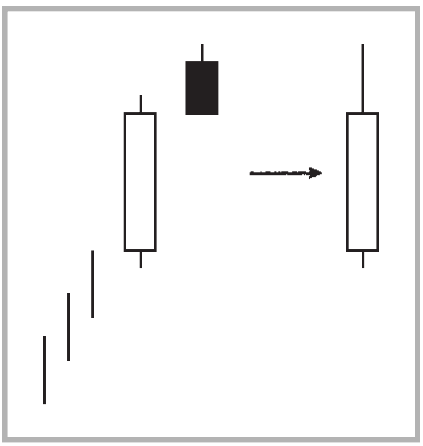


**Figure 4-15**

## Related Patterns

The bearish In Neck Line, like the bearish On Neck Line, is a weak beginning to a Piercing Line. It, however, is a little stronger, but not nearly enough to cause a reversal of trend. You should also note that this pattern, if both days are near Marubozu, would be like the bullish Meeting Lines pattern.

Also, be careful not to confuse the bearish Meeting Lines reversal pattern with the bullish On Neck Line and bullish In Neck Line continuation patterns. All three patterns look very similar.

## Examples

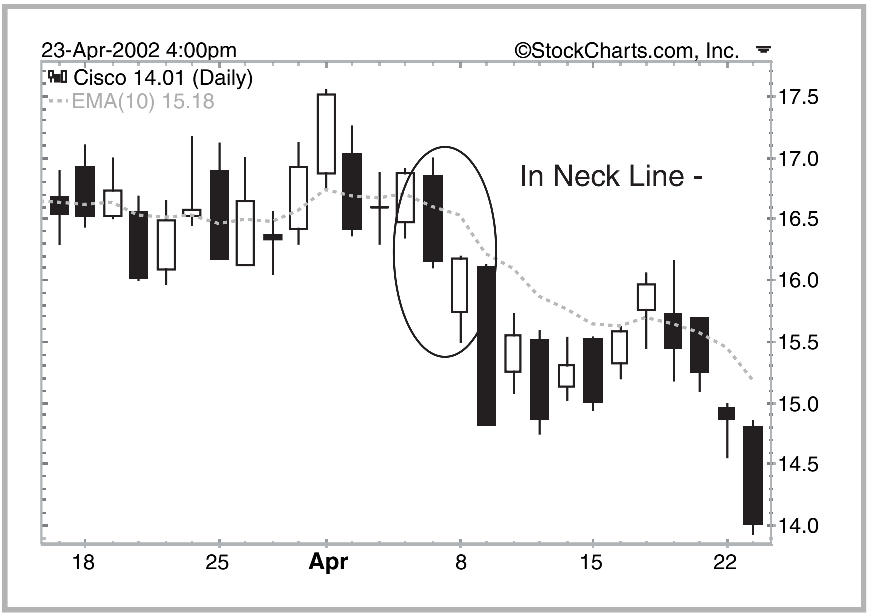



**Figure 4-16**

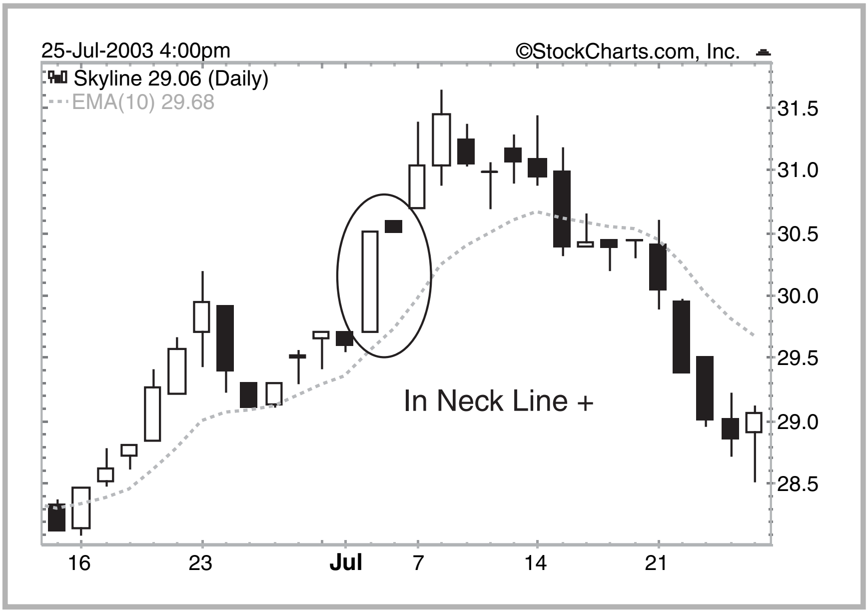



**Figure 4-17**

## THRUSTING

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Thrusting - | | | | **Type:** C- | | |
| **Japanese Name:** | *sashikomi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Suggested | | | |
| **Frequency (MDaysBP):** | 5,628 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 56 | 55 | 52 | 52 | 51 | 50 | 51 |
| **Avg. % Gain:** | 2.46 | 3.37 | 3.99 | 4.49 | 4.86 | 5.27 | 5.50 |
| **% Losers:** | 44 | 45 | 48 | 48 | 49 | 50 | 49 |
| **Avg. % Loss:** | -2.49 | -3.36 | -4.07 | -4.67 | -5.12 | -5.40 | -5.77 |
| **Net Profit / Net Loss:** | 0.25 | 0.30 | 0.15 | 0.06 | -0.02 | -0.10 | -0.05 |

| Pattern Name: | Thrusting + | | | | Type: | C+ | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *sashikomi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | | No | | |
| Frequency (MDaysBP): | 5,240 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 54 | 53 | 54 | 52 | 51 | 51 | 53 |
| Avg. % Gain: | 2.53 | 3.31 | 3.91 | 4.53 | 5.19 | 5.53 | 6.00 |
| % Losers: | 46 | 47 | 46 | 48 | 49 | 49 | 47 |
| Avg. % Loss: | -2.27 | -2.84 | -3.33 | -3.80 | -4.17 | -4.59 | -4.82 |
| Net Profit / Net Loss: | 0.27 | 0.42 | 0.54 | 0.52 | 0.54 | 0.55 | 0.83 |

**Figure 4-18**

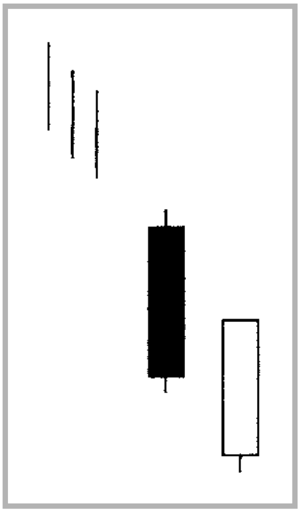
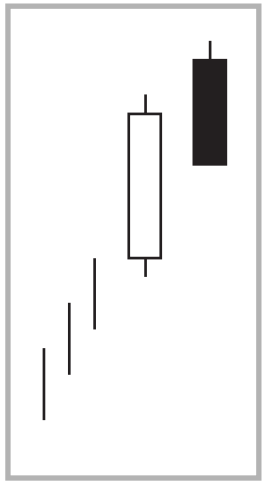


**Figure 4-19**



## Commentary

The bearish Thrusting pattern is the third derivative of the Piercing Line. The bearish Thrusting Line is stronger than either the bearish On Neck Line or the bearish In Neck Line, but fails to close above the midpoint of the previous day's body (Figure 4-18). The second day is normally a much larger gap down than the bearish In Neck or bearish On Neck patterns. This makes it a long white day and confirmation definitely is needed before adding to shorts positions.

The bullish Thrusting pattern is a two-day bullish continuation pattern. It was created as the complement of the bearish Thrusting pattern.

## Rules of Recognition

### *Bearish Thrusting*

1. A black day is formed in a downtrend.
2. The second day is white and opens considerably lower than the low of the first day.
3. The second day closes well into the body of the first day, but not above the midpoint.

### *Bullish Thrusting*

1. The first day is a long white day that occurs during an uptrend.
2. The second day is black. It opens way above the high of the first day and then trades down to close within the body of the first day, but does not close below the midpoint of the first day's body.

## Scenarios and Psychology behind the Pattern

### *Bearish Thrusting*

Much like the bearish On Neck and bearish In Neck Lines, the bearish Thrusting Line represents a failure to rally in a down market. Because of this failure, the bulls will be discouraged and a lack of buying will allow the downtrend to continue.

### *Bullish Thrusting*

The bullish Thrusting pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. Bullishness is increased with the long white first day.

The market gaps way up on the second day, opening well above the first day's high. The market then declines on this second day, closing into the body of the first day, but not below the midpoint of the body of the first day. This second day should be viewed as a normal pause or break in the uptrend, and the uptrend should continue shortly.

## Pattern Flexibility

### *Bearish Thrusting*

Because the bearish Thrusting pattern is approaching the bullish Piercing Line pattern and is slightly better than the bearish On Neck Line, there is little room for flexibility.

### *Bullish Thrusting*

Because the second day is a black day with little or no lower shadow, it is known as a Black Closing Marubozu. Both days of the bullish Thrusting pattern have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

## Pattern Breakdown

### *Bearish Thrusting*

The bearish Thrusting pattern reduces to a Hammer line, which is somewhat in conflict with the bearishness of this pattern (Figure 4-19). Because the bearish Thrusting pattern is so close to being a Piercing Line pattern, it is easy to see the possibility of no breakdown support.

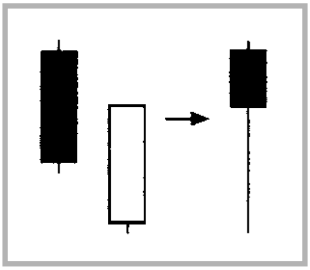


Figure 4-20

### *Bullish Thrusting*

The bullish Thrusting pattern reduces to a Shooting Star line. This is one case where the pattern does not reduce to a single candlestick line that supports the bullish (in this case) or bearish nature of the pattern.

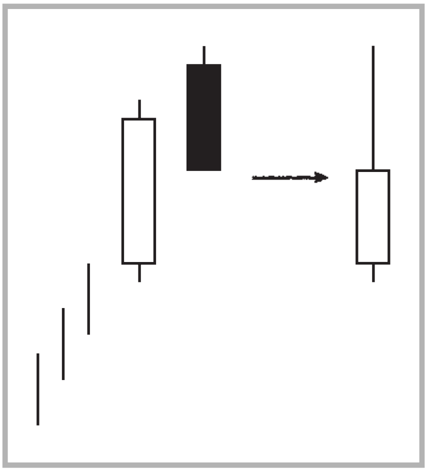


Figure 4-21

## Related Patterns

### *Bearish Thrusting*

The bearish Thrusting pattern is the strongest of the three lines that fail to make a Piercing Line. It is stronger than the bearish On Neck and bearish In Neck Lines, but weaker that the Piercing Line.

### *Bullish Thrusting*

Although the bullish Thrusting continuation pattern looks similar to the bearish reversal Dark Cloud Cover pattern, there are three important differences between the two patterns. The second day of the bullish Thrusting pattern will (1) open way above the first day's high (we require that the second day open more than 30% of the first day's high-low range higher than the first day's high), (2) close above the midpoint of the first day's body, and (3) close at or very near its low.

## Example

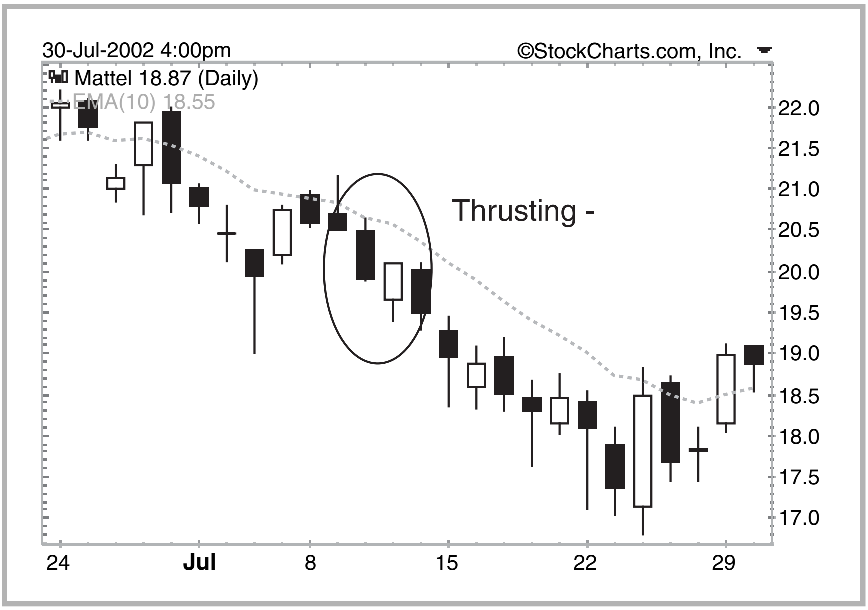



**Figure 4-22**

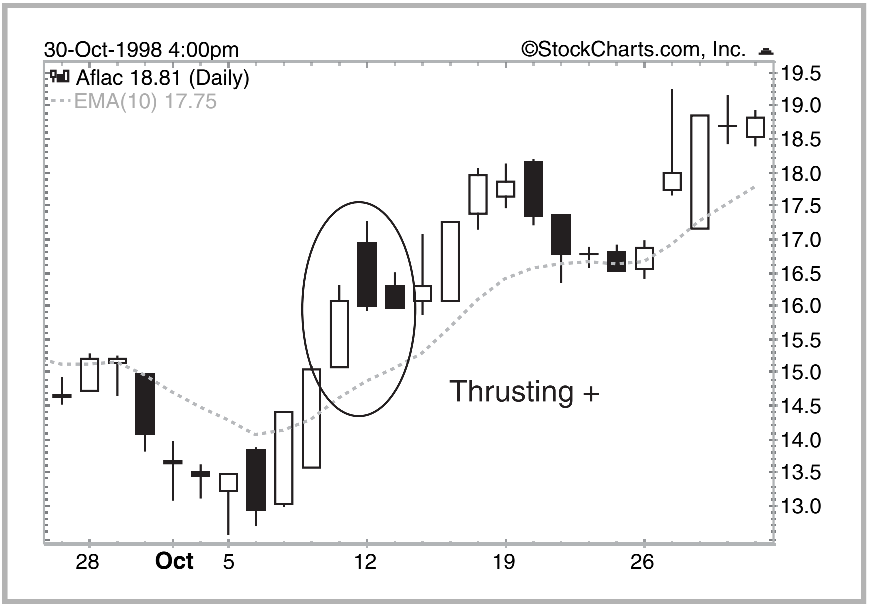



**Figure 4-23**

## ADDITIONAL NOTE ON THE ON NECK, IN NECK, AND THRUSTING PATTERNS

You may wonder why there are three continuation patterns that are derived from a failure to complete a Piercing Line. The bearish On Neck Line, bearish In Neck Line, and bearish Thrusting all represent failed attempts to reverse the downtrend. Similarly, the bullish versions of these three represent a failure of the Dark Cloud Cover.

The bullish versions were not part of any Japanese literature and were created to provide complementary patterns for any Japanese patterns that did not have one. Why, then, were there not similar patterns that represent failed Dark Cloud Cover patterns in Japanese literature on the subject? This can be answered by most students of the market who are familiar with normal topping and bottoming tendencies. Bottoms (market lows) tend to be sharp and with more emotion. Tops usually take longer to play out, and cannot be as easily identified.

## THREE-DAY PATTERNS

### UPSIDE TASUKI GAP AND DOWNSIDE TASUKI GAP

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Upside Tasuki Gap + | | | | | **Type:** C+ | |
| **Japanese Name:** | *uwa banare tasuki* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | | Suggested | |
| **Frequency (MDaysBP):** | 18,839 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 50 | 50 | 49 | 49 | 49 | 50 |
| **Avg. % Gain:** | 2.36 | 3.43 | 4.09 | 4.46 | 5.05 | 5.36 | 6.06 |
| **% Losers:** | 48 | 50 | 50 | 51 | 51 | 51 | 50 |
| **Avg. % Loss:** | -2.17 | -2.94 | -3.59 | -4.23 | -4.94 | -5.13 | -5.45 |
| **Net Profit / Net Loss:** | 0.16 | 0.25 | 0.24 | 0.06 | 0.00 | -0.03 | 0.35 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Downside Tasuki Gap - | | | | | **Type:** C- | |
| **Japanese Name:** | *shita banare tasuki* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | | Required | |
| **Frequency (MDaysBP):** | 20,278 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 52 | 51 | 50 | 52 | 50 | 50 | 49 |
| **Avg. % Gain:** | 2.53 | 3.56 | 4.28 | 4.44 | 5.02 | 5.33 | 5.81 |
| **% Losers:** | 48 | 49 | 50 | 48 | 50 | 50 | 51 |
| **Avg. % Loss:** | -2.80 | -3.52 | -4.31 | -5.28 | -5.37 | -5.79 | -6.22 |
| **Net Profit / Net Loss:** | -0.02 | 0.10 | -0.03 | -0.21 | -0.19 | -0.24 | -0.28 |

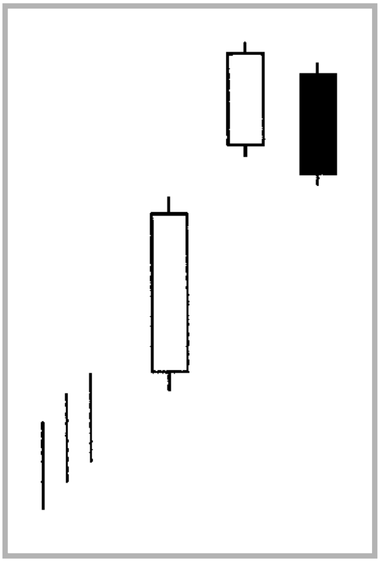


**Figure 4-24**

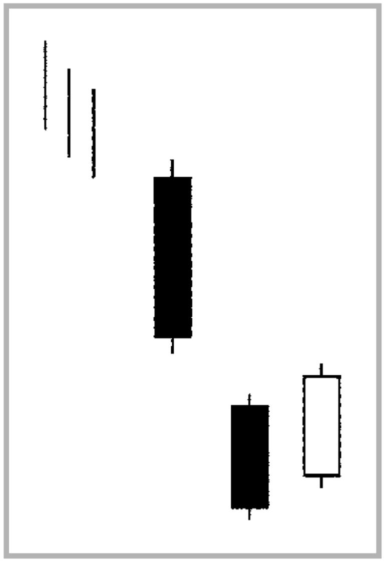


**Figure 4-25**

## Commentary

The typical Tasuki line occurs when the price opens lower from a white line and then closes lower than the previous day's low. When the price opens higher from a black day's close and then closes higher than its high is the opposite case. Tasuki lines are mentioned in a number of sources of candlestick literature, but they do not contribute enough to be considered as individual patterns. A Tasuki is a sash for holding up sleeves. The Tasuki Gaps involve the Tasuki line after a gap in the direction of the current market trend.

An Upside Tasuki Gap (Figure 4-24) is a white candlestick that has gapped above the previous white candlestick, then followed by a black candlestick that closes inside that gap. This last day must also open inside the second white day's body. An important point is that the gap made between the first two days is not filled. The philosophy is that one should go long on the close of the last day. The same concept would be true in reverse for a Downside Tasuki Gap (Figure 4-25).

## Rules of Recognition

1. A trend is underway, with a gap between two candlesticks of the same color.
2. The color of the first two candlesticks represents the prevailing trend.
3. The third day, an opposite-color candlestick opens within the body of the second day.
4. The third day closes into the gap but does not fully close the gap.

## Scenarios and Psychology behind the Pattern

The psychology behind a Tasuki Gap is quite simple: Go with the trend of the gap. The correction day (the third day) did not fill the gap and the previous trend should continue. This is looked upon as temporary profit taking. The Japanese widely follow gaps (windows). Therefore, the fact that the gap does not get filled or closed means that the previous trend should resume.

The literature is sometimes contradictory on gaps. One normally expects a gap to provide support and/or resistance. The fact that the gap is tested so quickly is reason to believe that the gap may not provide its usual analytic ability.

## Pattern Flexibility

The first day's color is not as important as the color of the second and third days. It is best that it be the same color as the second day, which would fully support the ongoing trend.

## Pattern Breakdown

The Upside Tasuki Gap pattern reduces into a long line with a white body at the lower end (Figure 4-26). The only support here can be in the fact that the breakdown is a long white line, which is normally considered bullish. The Downside Tasuki Gap (Figure 4-27) reduces to a long black line, which is usually bearish. Because of the lack of strong support, further confirmation is recommended.

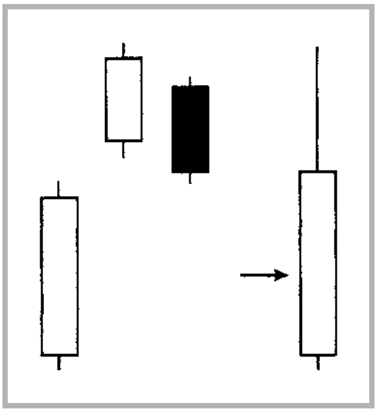


**Figure 4-26**

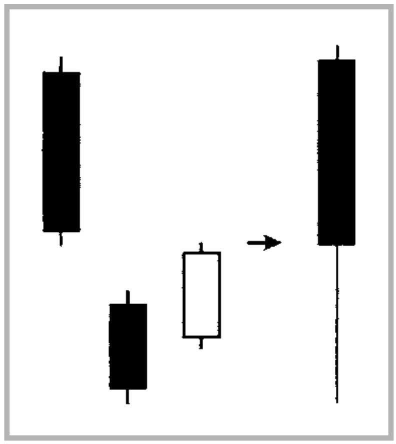


**Figure 4-27**

## Related Patterns

The Tasuki lines by themselves are somewhat opposite of the Piercing Line and the Dark Cloud Cover, which are reversal patterns. The Upside and Downside Tasuki Gap patterns are very similar to the Upside and Downside Gap Three Methods pattern discussed later in this chapter. You will see that they are also in direct conflict with each other. It might be best to see the statistical results of the pattern testing in later chapters.

## Examples

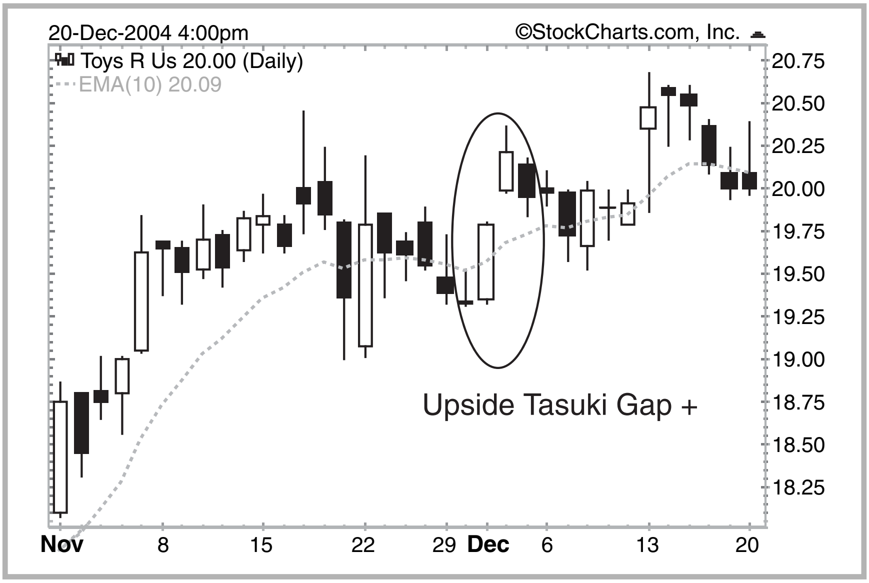



**Figure 4-28A**

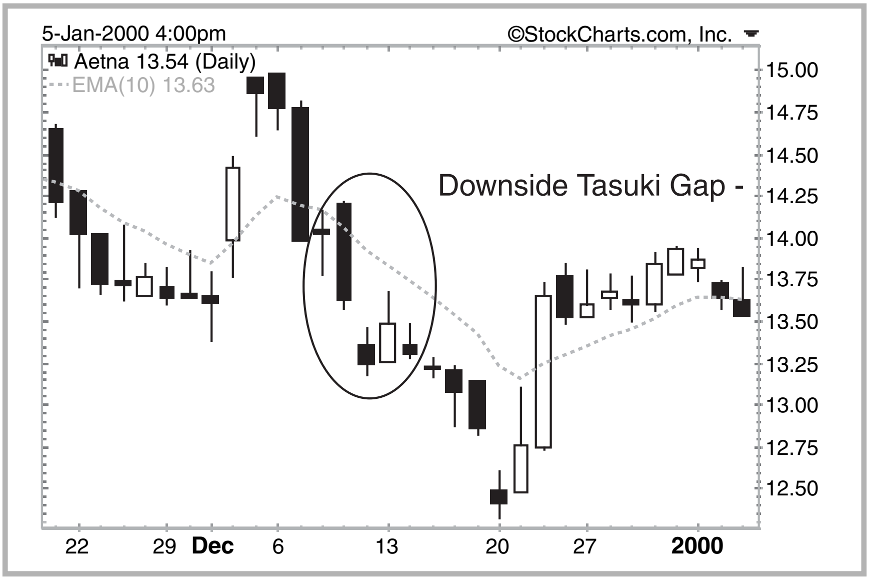



**Figure 4-28B**

## SIDE-BY-SIDE WHITE LINES

| Pattern Name: | Side by Side White Lines + | | | | Type: C+ | |
|---|---|---|---|---|---|---|
| Japanese Name: | *narabi aka* | | | | | |
| Trend Required: | Yes | Confirmation: | | | Suggested | |
| Frequency (MDaysBP): | 16,295 | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 50 | 45 | 48 | 48 | 48 | 48 | 50 |
| Avg. % Gain: | 2.57 | 3.35 | 3.71 | 4.27 | 4.67 | 5.58 | 5.66 |
| % Losers: | 50 | 55 | 52 | 52 | 52 | 52 | 50 |
| Avg. % Loss: | -2.30 | -3.05 | -3.68 | -4.40 | -4.60 | -4.90 | -5.40 |
| Net Profit / Net Loss: | 0.10 | -0.14 | -0.13 | -0.20 | -0.15 | 0.14 | 0.10 |

| Pattern Name: | Side by Side White Lines - | | | | Type: C- | |
|---|---|---|---|---|---|---|
| Japanese Name: | *narabi aka* | | | | | |
| Trend Required: | Yes | Confirmation: | | | Required | |
| Frequency (MDaysBP): | 47,557 | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | |

| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| % Winners: | 50 | 46 | 43 | 47 | 45 | 44 | 45 |
| Avg. % Gain: | 2.23 | 2.80 | 3.89 | 4.29 | 4.88 | 5.48 | 5.93 |
| % Losers: | 50 | 54 | 57 | 53 | 55 | 56 | 55 |
| Avg. % Loss: | -3.21 | -4.32 | -4.69 | -5.61 | -6.35 | -6.72 | -6.74 |
| Net Profit / Net Loss: | -0.45 | -0.99 | -0.92 | -0.91 | -1.22 | -1.39 | -1.02 |

Figure 4-29

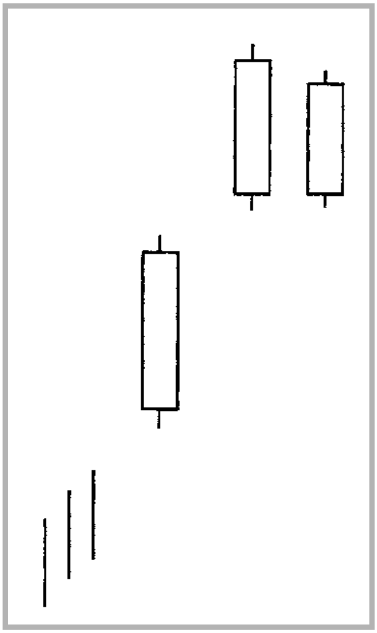
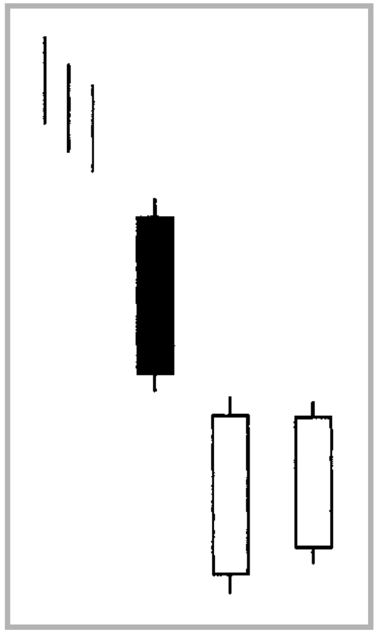


Figure 4-30



## Commentary

*Narabi* means "in a row" and *narabiaka* means "white in a row." The Japanese literature refers to Side-by-Side Lines, both black and white, but only indicates a pause or a stalemate when they are by themselves. The pattern of importance here is two white lines that have gapped in the direction of the current trend.

### *Bullish Side-by-Side White Lines*

Two white candlesticks of similar size are side-by-side after gapping above another white candlestick. Not only are they of similar size, but the opening price should be very close. The Bullish Side-by-Side White Lines (Figure 4-29) is also referred to as an Upside Gap Side-by-Side White Lines (*unwappanare Narabiaka*).

### *Bearish Side-by-Side White Lines*

Side-by-Side White Lines that gap to the downside are very rare. These are also called Downside Gap Side-by-Side White Lines (Figure 4-30). Despite what appears to be obvious, these two white lines are looked upon as short covering. This action, like many continuation patterns, represents the market taking a rest or buying time.

It would be a normal expectation to have two Side-by-Side Black Lines for this continuation pattern. A downside gap to Side-by-Side Black Lines would certainly indicate a continuation of the downtrend. This pattern, however, is not of much use because it portrays the obvious. Another derivation of these lines would be Side-by-Side White Lines that do not gap, but are in an uptrending market. These are called Side-by-Side White Lines in Stalemate (*ikizumari narabiaka*). These indicate that the market is approaching its top and with limited support.

## Rules of Recognition

1. A gap is made in the direction of the trend.
2. The second day is a white candle line.
3. The third day is also a white candle line of about the same size and opens at about the same price.

## Scenarios and Psychology behind the Pattern

### *Bullish Side-by-Side White Lines*

The market is in a uptrend. A long white candlestick is formed, which further perpetuates the bullishness. The next day, the market gaps up on the open and closes still higher. However, on the third day, the market opens much lower, in fact, as low as the previous day's open. The initial selling that caused the lower open ends quickly and the market climbs to yet another high. This demonstrates the force behind the buyers, and the rally should continue.

#### *Bearish Side-by-Side White Lines*

A downtrend is further enhanced with a long black candle line followed by a large downward gap open on the next day. The market trades higher all day, but not high enough to close the gap. The third day opens lower, at about the same open as the second day. Because of the resistance to further downside action, shorts are covered, causing the third day also to rally and close higher, but again not high enough to close the gap. If enough short covering was accomplished and the rally attempt was not very convincing, the downtrend should continue.

### Pattern Flexibility

Because Side-by-Side White Lines are used only after gapping, there is not much flexibility in this pattern. The two white lines should be similar in body length, but this length is not as important as the fact that they gapped in the direction of the trend. Their opening prices should be close to the same, though.

### Pattern Breakdown

The Upside Gap Side-by-Side White Lines reduce to a long white candlestick, which fully supports the bullish continuation (Figure 4-31). The Downside Gap Side-by-Side White Lines reduce to a black candlestick with a long lower shadow (Figure 4-32). This single candle line does not fully support the bearish continuation and suggests further confirmation.

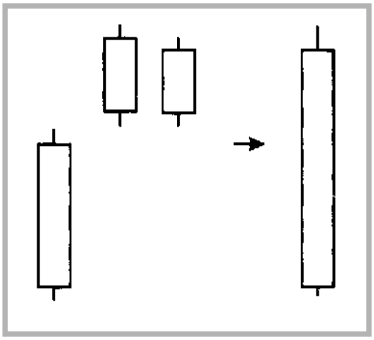


Figure 4-31

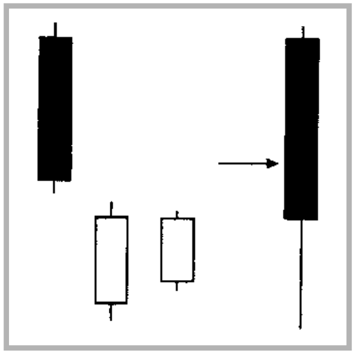


Figure 4-32

## Related Patterns

There are no patterns comparable to the Side-by-Side White Lines. The Breakaway pattern has some similarities in that the second and third days gap in the direction of trend.

## Examples

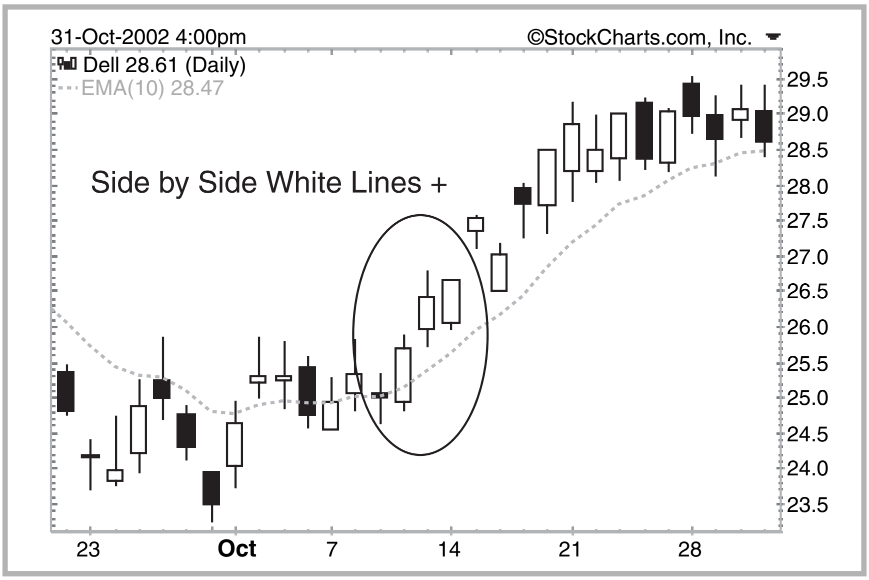



Figure 4-33A

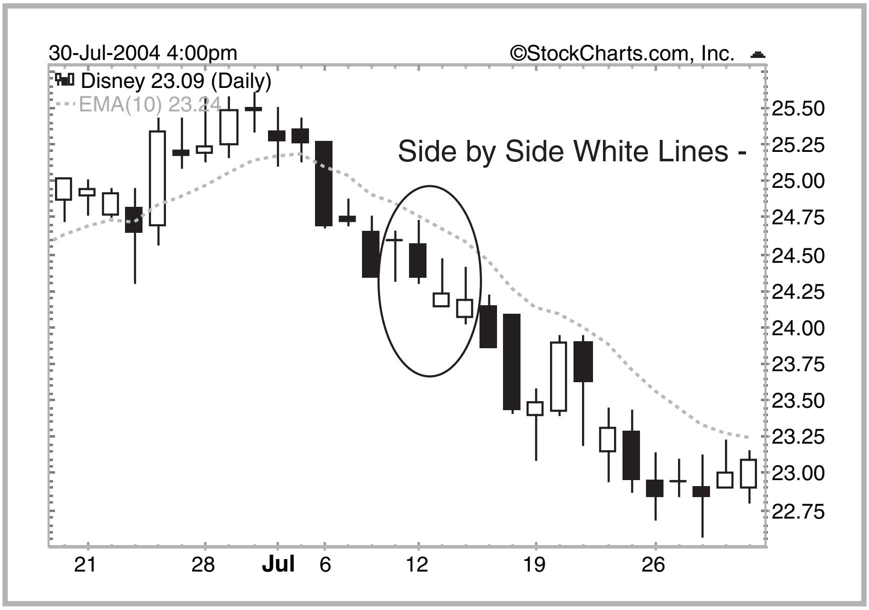



**Figure 4-33B**

## SIDE-BY-SIDE BLACK LINES

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Side by Side Black Lines + | | | | **Type:** C+ | | |
| **Japanese Name:** | *narabi kuro* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Suggested | | |
| **Frequency (MDaysBP):** | 28,131 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 48 | 50 | 50 | 50 | 51 | 51 | 51 |
| **Avg. % Gain:** | 2.50 | 4.03 | 5.47 | 5.66 | 6.47 | 6.72 | 7.67 |
| **% Losers:** | 52 | 50 | 50 | 50 | 49 | 49 | 49 |
| **Avg. % Loss:** | -2.59 | -3.48 | -4.09 | -4.71 | -5.60 | -5.75 | -6.16 |
| **Net Profit / Net Loss:** | -0.12 | 0.25 | 0.65 | 0.48 | 0.47 | 0.58 | 0.87 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Side by Side Black Lines - | | | | **Type:** C- | | |
| **Japanese Name:** | *narabi kuro* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | | Required | | |
| **Frequency (MDaysBP):** | 25,569 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 46 | 48 | 46 | 46 | 46 | 46 | 47 |
| **Avg. % Gain:** | 2.78 | 3.72 | 4.49 | 4.78 | 5.62 | 6.34 | 6.82 |
| **% Losers:** | 54 | 52 | 54 | 54 | 54 | 54 | 53 |
| **Avg. % Loss:** | -2.96 | -4.98 | -5.51 | -6.15 | -6.82 | -7.24 | -7.55 |
| **Net Profit / Net Loss:** | -0.32 | -0.77 | -0.92 | -1.10 | -1.04 | -0.92 | -0.78 |

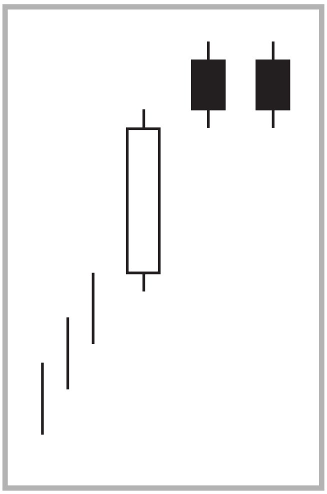


**Figure 4-34**

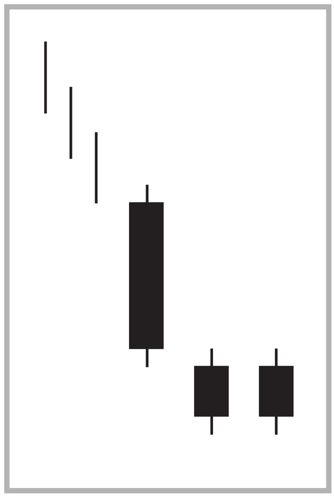


**Figure 4-35**

## Commentary

The bullish Side-by-Side Black Lines pattern is a three-day bullish continuation pattern. Similarly, the bearish Side-by-Side Black Lines pattern is a three-day bearish continuation pattern.

## Rules of Recognition

### *Bullish Side-by-Side Black Lines*

1. The pattern begins with a long white day that occurs during an uptrend.
2. The second day is a black day that opens above the previous day's close.
3. The second day trades lower, but never low enough to close the gap.
4. The third day opens higher, opening above the midpoint of the previous day. Prices drop, however, and the third day ends up closing down for the day. The third day does not close low enough to fill the gap formed by the first two days.

### *Bearish Side-by-Side Black Lines*

1. The pattern begins with a long black day that occurs during a downtrend.
2. The second day is also a long black day that opens below the previous day's close, thereby forming a gap between the two black real bodies.
3. The third day opens much higher, but not so high as to fill the gap formed by the first two days. Prices decline, however, and the third day ends up closing down for the day.

## Scenarios and Psychology behind the Pattern

### *Bullish Side-by-Side Black Lines*

The bullish Side-by-Side Black Lines pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place. The long white day adds to the bullishness already present.

The next day opens way up. The market trades lower, but not low enough to close the gap. The third day opens higher, opening above the midpoint of the previous day. Like the second day, prices decline on the third day, but not low enough to fill the gap formed by the first and second days. The closing prices for the second and third days are about equal. The two black candlestick lines in this pattern are looked upon as profit taking. Once the profit taking ends, the uptrend should continue.

### *Bearish Side-by-Side Black Lines*

The bearish Side-by-Side Black Lines pattern starts with a long black day. The midpoint of the range of the first day is below a 10-period moving average. This means that a downtrend has been in place. The long black day adds to the bearishness already present.

The next day opens lower with a gap and closes still lower. However, on the third day, the market opens much higher, opening at about the same price as the prior day's opening price. The initial buying that caused the higher open ends quickly and prices drop. The second day closes down for the day. This demonstrates the force behind the sellers, and the downtrend should continue.

## Pattern Flexibility

### *Bullish Side-by-Side Black Lines*

With this pattern, you should ensure that the high-low range of the first day is greater than the average of the five days' high-low ranges that immediately precede the pattern. The first day must have a long body. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range. The second and third days must have bodies that are not dojis.

Finally, the high-low ranges and the body ranges of the second and third days of the pattern should be roughly the same size. Specifically, we require that the shorter of the high-low ranges of the two days be greater than 50% of the longer of the high-low ranges of the two days. This means that the high-low range of one day will never be more than two times the high-low range of the other day. We also require that the shorter of the body ranges of the two days be greater than 50% of the longer of the body ranges of the two days. This means that the body range of one day will never be more than two times the body range of the other day.

### *Bearish Side-by-Side Black Lines*

What the length and body length requirements described in the two paragraphs above are trying to avoid is having dojis or stars or short days for the second and third days of the pattern. These types of days would be more consistent with a reversal pattern.

Finally, the high-low ranges and the body ranges of the second and third days of the pattern should be roughly the same size. Specifically, we require that the shorter of the high-low ranges of the two days be greater than 50% of the longer of the high-low ranges of the two days. This means that the high-low range of one day will never be more than two times the high-low range of the other day. We also require that the shorter of the body ranges of the two days be greater than 50% of the longer of the body ranges of the two days. This means that the body range of one day will never be more than two times the body range of the other day.

With this pattern, you should ensure that (1) the high-low range of the first day is greater than the average of the five days' high-low ranges that immediately precede the pattern, and (2) the high-low ranges of the second and third days be greater than 65% of the average of the five days' high-low ranges that immediately precede the pattern.

The first day must have a long body. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range. The second and third days must have bodies that occupy more than 30% of their high-low ranges.

## Pattern Breakdown

The bearish Side-by-Side Black Lines pattern reduces to a long candlestick line with a long black body. A long black candlestick line that occurs in a downtrend is bearish and supports the bearishness of the pattern.

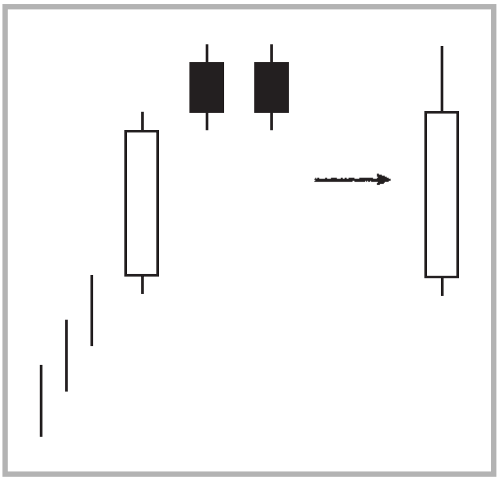
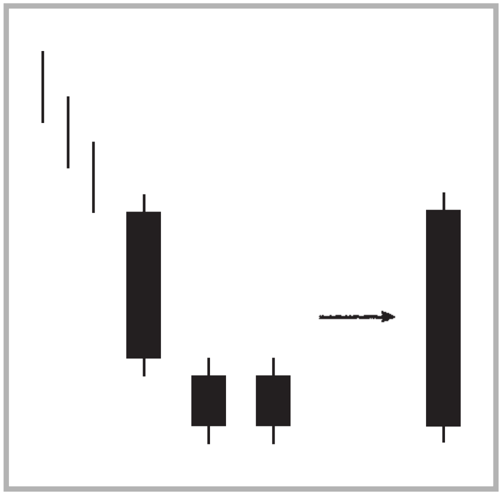


**Figure 4-36**

The bullish Side-by-Side Black Lines pattern reduces to a long white candlestick line with a fairly long white body at the lower end. A long white candlestick line that occurs in an uptrend is bullish and supports the bullishness of the pattern.

Figure 4-37



Note: Both versions require that the gap between the real bodies of the first and second days be greater than 10% of the high-low range of the first day.

## Related Patterns

The bullish Side-by-Side Black Lines pattern is the opposite of the bearish Side-by-Side White Lines pattern.

The bearish Side-by-Side Black Lines pattern is the opposite of the bullish Side-by-Side White Lines pattern.

## Example

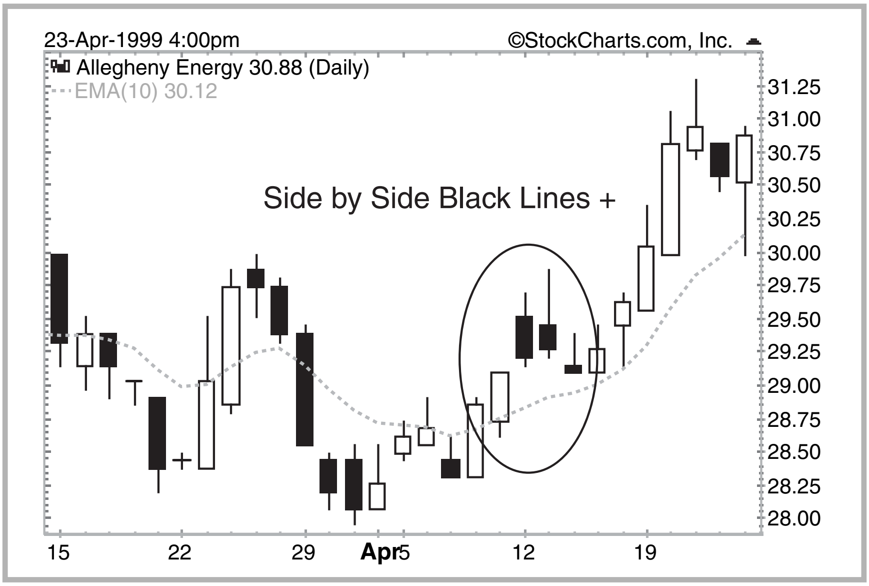



**Figure 4-38**

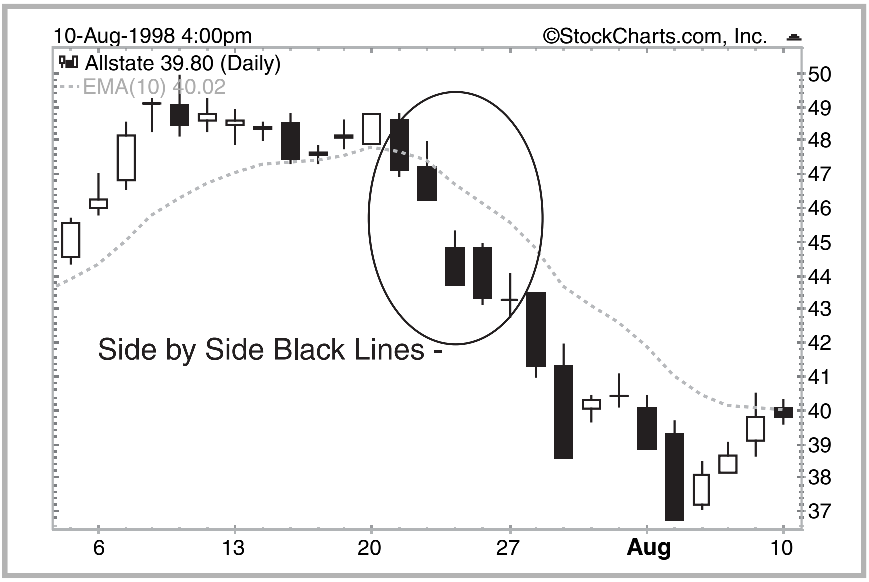



**Figure 4-39**

## UPSIDE GAP THREE METHODS AND DOWNSIDE GAP THREE METHODS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Upside Gap 3 Methods + | | | | **Type:** C+ | | |
| **Japanese Name:** | *uwa banare sanpoo hatsu oshi* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | No | | |
| **Frequency (MDaysBP):** | 21,598 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 57 | 57 | 54 | 54 | 53 | 55 | 54 |
| **Avg. % Gain:** | 2.54 | 3.27 | 4.06 | 4.35 | 4.77 | 4.77 | 5.36 |
| **% Losers:** | 43 | 43 | 46 | 46 | 47 | 45 | 46 |
| **Avg. % Loss:** | -2.08 | -2.66 | -3.14 | -3.73 | -4.18 | -4.71 | -5.24 |
| **Net Profit / Net Loss:** | 0.54 | 0.67 | 0.75 | 0.63 | 0.51 | 0.47 | 0.48 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Downside Gap 3 Methods - | | | | **Type:** C- | | |
| **Japanese Name:** | *shita banare sanpoo ippon dachi* | | | | | | |
| **Trend Required:** | Yes | | **Confirmation:** | | Required | | |
| **Frequency (MDaysBP):** | 18,365 | | Rare | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 51 | 52 | 48 | 48 | 49 | 49 | 49 |
| **Avg. % Gain:** | 2.87 | 3.44 | 3.97 | 4.31 | 4.96 | 5.26 | 5.44 |
| **% Losers:** | 49 | 48 | 52 | 52 | 51 | 51 | 51 |
| **Avg. % Loss:** | -2.76 | -3.54 | -4.04 | -5.06 | -5.58 | -6.10 | -6.64 |
| **Net Profit / Net Loss:** | 0.11 | 0.06 | -0.22 | -0.58 | -0.37 | -0.50 | -0.71 |

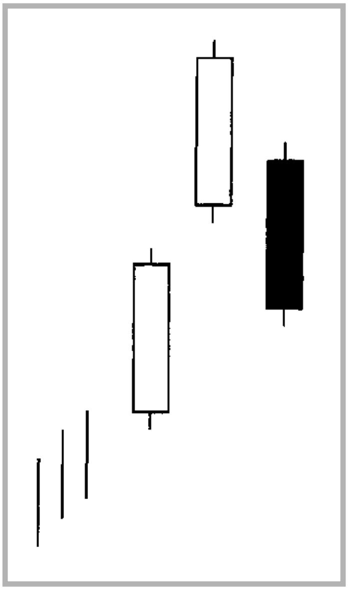


**Figure 4-40**

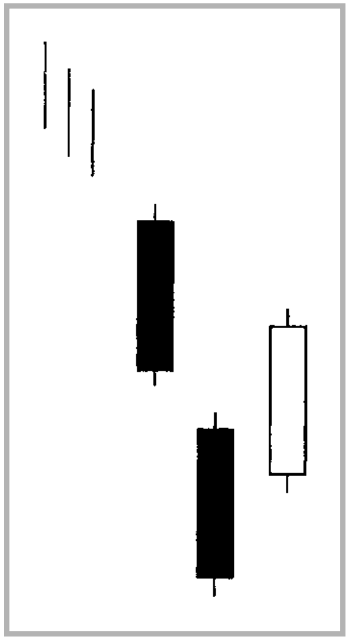


**Figure 4-41**

## Commentary

This is a simplistic pattern, quite similar to the Upside and Downside Tasuki Gaps, that occurs in a strong, trending market. A gap appears between two candlesticks of the sample color (Figures 4-40 and 4-41). This color should reflect the trend of the market. The third day opens within the body of the second candlestick and then closes within the body of the first candlestick (bridging the first and second candles), which would also make it the opposite color of the first two days. This would, in traditional terminology, close the gap.

## Rules of Recognition

1. A trend continues, with two long days that have a gap between them.

2. The third day fills the gap and is the opposite color of the first two days.

### Scenarios and Psychology behind the Pattern

The market is moving strongly in one direction. This move is extended further by another day that gaps even more in the direction of the trend. The third day opens well into the body of the second day, then completely fills the gap. This gap-closing move should be looked upon as supporting for the current trend. Gaps normally provide excellent support and/or resistance points when considered after a reasonable period of time. Because this gap is filled within one day, some other considerations should be made. If this is the first gap of a move, then the reaction (third day) can be considered as profit taking.

### Pattern Flexibility

No significant flexibility is suggested, as this is a fairly simple concept and pattern. The first day could be opposite in color to the second day without much change in the pattern's interpretation.

### Pattern Breakdown

The bullish Upside Gap Three Methods pattern reduces to a Shooting Star line (Figure 4-42) and the bearish Downside Gap Three Methods pattern reduces to a Hammer line (Figure 4-43). These are two patterns (when all are considered) that do not reduce to the single line that supports the bullish or bearish nature of the pattern.

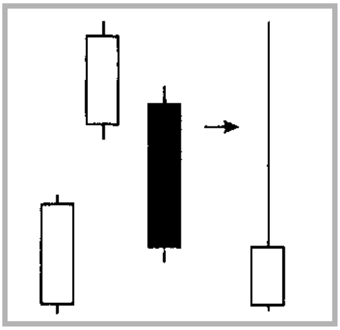


Figure 4-42

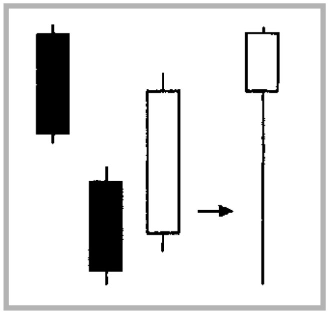


Figure 4-43

## Related Patterns

These are somewhat similar to the Tasuki Gap, except that the gap is filled in the Upside and Downside Gap Three Methods. Because of this conflict on two sets of continuation patterns, one should refer to the pattern statistics found in Chapter 7.

## Examples

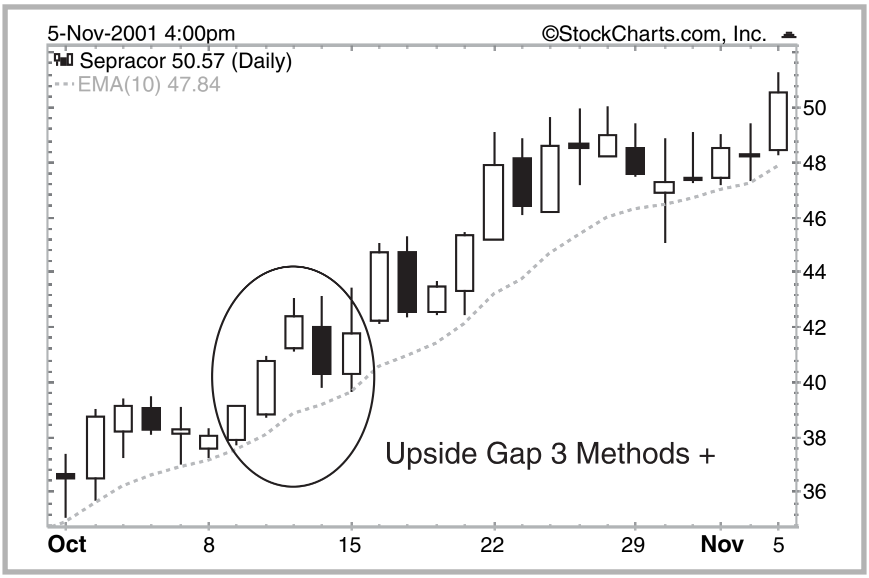



Figure 4-44A

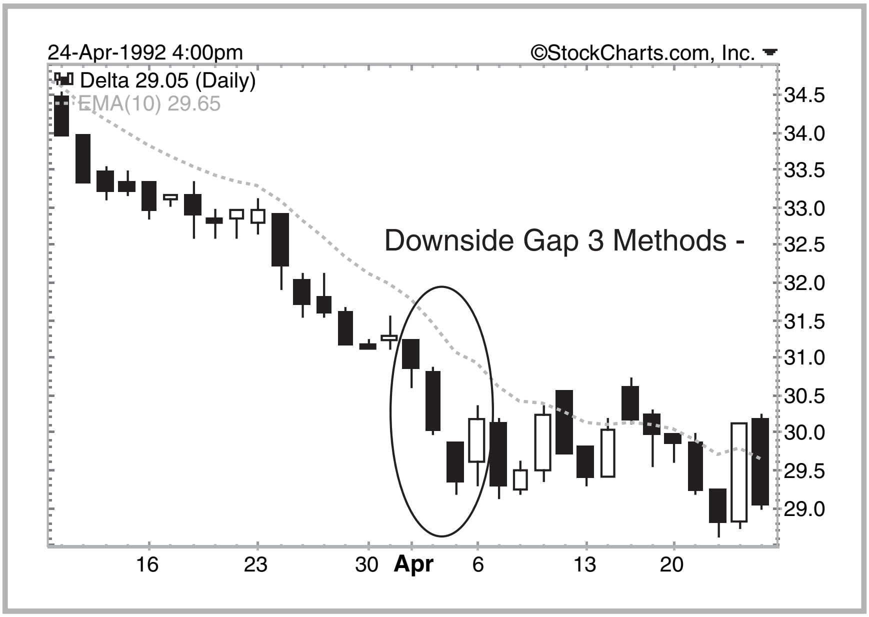



**Figure 4-44B**

## REST AFTER BATTLE

| Pattern Name: | Rest After Battle + | | | Type: C+ | | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *tatakai no akatsuki* | | | | | | |
| Trend Required: | Yes | | Confirmation: | | No | | |
| Frequency (MDaysBP): | 1,294 | | Average | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 50 | 52 | 51 | 51 | 51 | 51 | 51 |
| Avg. % Gain: | 2.37 | 3.44 | 4.29 | 4.96 | 5.52 | 5.96 | 6.36 |
| % Losers: | 50 | 48 | 49 | 49 | 49 | 49 | 49 |
| Avg. % Loss: | -2.13 | -3.03 | -3.73 | -4.24 | -4.74 | -5.17 | -5.52 |
| Net Profit / Net Loss: | 0.11 | 0.31 | 0.37 | 0.40 | 0.45 | 0.47 | 0.55 |

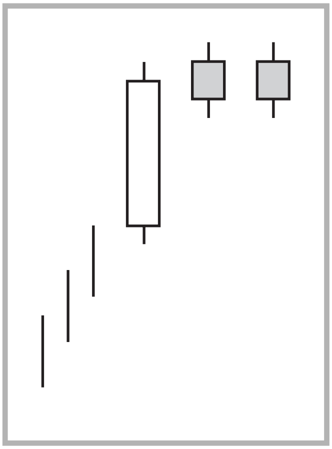


**Figure 4-45**

## Commentary

The bullish Rest after Battle pattern is a three-day bullish continuation pattern. It was created to capture that certain type of uptrend that begins with one long white day, followed by a number of days of lateral movement, followed by another long white day, to be followed again by a number of days of lateral movement. This type of "stair step" uptrend can last anywhere from three to eight weeks. At some point, the momentum of the uptrend increases, and you will see consecutive white days, gap up openings, and fewer consecutive black days, until the uptrend finally becomes overextended.

The Rest after Battle pattern has no opposite/complementary pattern.

## Rules of Recognition

1. The Rest after Battle pattern starts with a long white day. The midpoint of the range of the first day is above a 10-period moving average. This means that an uptrend has been in place.

2. The high-low range of the first day should be greater than the average of the five days' high-low ranges that immediately precede the pattern.
3. The first day must also have a very long body.

## Scenarios and Psychology behind the Pattern

The first day of this pattern represents real buying enthusiasm. You don't want too much buying to precede this first day, so the day before the pattern cannot be a white day that is longer than the first day of the pattern.

Additionally, beware of this pattern if it occurs after a sustained uptrend.

## Pattern Flexibility

The second and third candlestick lines in this pattern represent a period of rest following the first day's strong rise. The second and third days are relatively short, and they do not have long bodies. Specifically, the high-low ranges of the second and third days must be less than 75% of the high-low range of the first day. And the real bodies of the second and third days must occupy less than 50% of the days' high-low ranges.

The second and third days are meant to represent rest, not weakness or too much additional strength following the first day. So, the second and third days must both close above the midpoint of the first day's high-low range. Additionally, the third day's low must be greater than the midpoint of the first day's high-low range. These requirements make sure that prices do not decline too much after the first day.

In order to make sure that there is some, but not too much, strength following the first day, you should ensure that the top of the second day is above the close of the first day. The second day can be white or black, so the top of the second day can be the open or the close of the second day. In either case, the gap up opening of the second day shows there is some early additional buying interest after the first day. To limit the strength of the second day, you should ensure that the low of the second day is below the high of the first day.

Again, following through with the not too much weakness or strength idea, the third day must open and close below the second day's high, and open and close above the second day's low. Like the second day, the third day can be either white or black.

## Pattern Breakdown

The Rest after Battle pattern reduces to a long white candlestick line with a fairly long white body at the lower end. A long white candlestick line that occurs in an uptrend is bullish and supports the bullishness of the pattern.

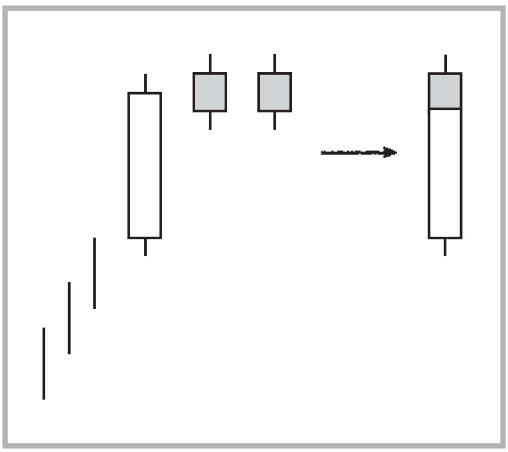


**Figure 4-46**

### Example

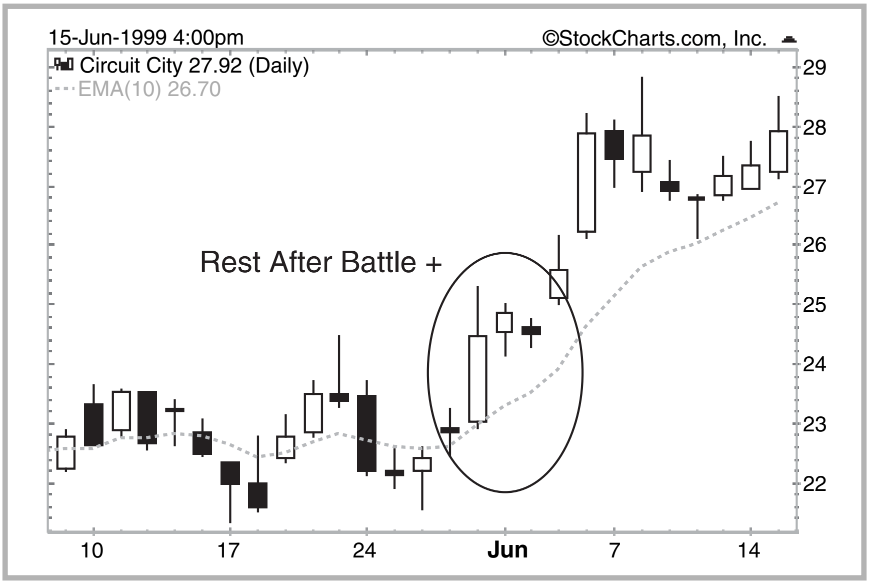



**Figure 4-47**

## FOUR-OR-MORE-DAY PATTERNS

### RISING THREE METHOD AND FALLING THREE METHOD

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Rising 3 Methods + | | | | **Type:** C+ | | |
| **Japanese Name:** | *uwa banare sanpoo ohdatekomi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | No | | | | |
| **Frequency (MDaysBP):** | 5,332 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **% Winners:** | 50 | 50 | 49 | 49 | 50 | 49 | 50 |
| **Avg. % Gain:** | 2.88 | 3.96 | 4.62 | 5.19 | 5.79 | 6.44 | 6.75 |
| **% Losers:** | 50 | 50 | 51 | 51 | 50 | 51 | 50 |
| **Avg. % Loss:** | -2.33 | -3.12 | -3.52 | -4.07 | -4.63 | -4.92 | -5.23 |
| **Net Profit / Net Loss:** | 0.26 | 0.44 | 0.50 | 0.47 | 0.58 | 0.67 | 0.70 |

| Pattern Name: | Falling 3 Methods - | | | | Type: | C- | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *shita banare sanpoo ohdatekomi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | | Suggested | | |
| Frequency (MDaysBP): | 8,075 | Average | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 51 | 53 | 52 | 49 | 48 | 48 | 48 |
| Avg. % Gain: | 2.89 | 3.85 | 4.78 | 5.39 | 5.99 | 6.63 | 6.98 |
| % Losers: | 49 | 47 | 48 | 51 | 52 | 52 | 52 |
| Avg. % Loss: | -2.69 | -3.80 | -4.55 | -5.07 | -5.50 | -6.31 | -6.67 |
| Net Profit / Net Loss: | 0.15 | 0.22 | 0.29 | 0.04 | 0.02 | -0.07 | -0.06 |

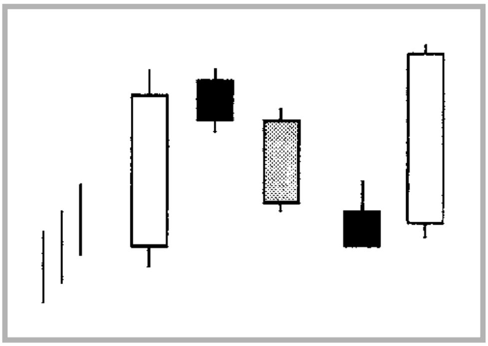


**Figure 4-48**

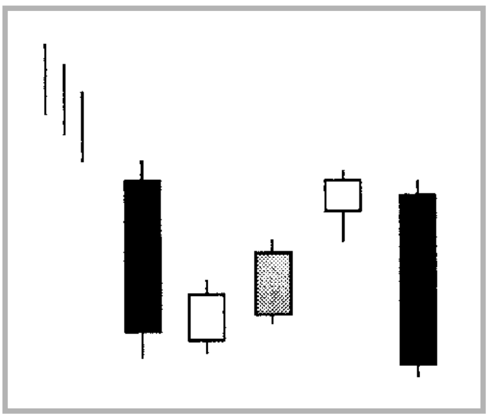


**Figure 4-49**

## Commentary

The Three Methods (Chapter 5) include the bullish Rising Three Methods and the bearish Falling Three Methods. Both are continuation patterns that represent breaks in the trend of prices without causing a reversal. They are days of rest in the market action and can be used to add to positions, if already in the market.

### *Rising Three Method*

A long white candlestick is formed in an uptrend (Figure 4-48). After this long day, a group of small-bodied candlesticks occur, which shows some resistance to the previous trend. These reaction days are generally black, but most importantly, their bodies all fall within the high-low range of the first long white day. Remember that the high-low range includes the shadows. The final candlestick (normally the fifth day) opens above the close of the previous reaction day and then closes at a new high.

### *Falling Three Methods*

The Falling Three Methods pattern is the bearish counterpart of the Rising Three Methods pattern. A downtrend is underway, when it is further perpetuated with a long black candlestick (Figure 4-49). The next three days produce small-body days that move against the trend. It is best if the bodies of these reactionary days are white. It is noted that the bodies all remain within the high-low range of the first black candlestick. The last day should open near the previous day's close and then close at a new low. The market's rest is over.

## Rules of Recognition

1. A long candlestick is formed representing the current trend.

2. This candlestick is followed by a group of small real body candlesticks. It is best if they are opposite in color.
3. The small candlesticks rise or fall opposite to the trend and remain within the high-low range of the first day.
4. The final day should be a strong day, with a close outside of the first day's close and in the direction of the original trend.

## Scenarios and Psychology behind the Pattern

The concept behind the Rising Three Methods comes from early Japanese futures trading history and is a vital part of the Sakata Method. The Three Methods pattern is considered a rest from battle. In modern terminology, the market is just taking a break. The psychology behind a move like this is that some doubt creeps in about the ability of the trend to continue. This doubt increases as the small-range reaction days take place. However, once the bulls see that a new low cannot be made, the bullishness is resumed and new highs are set quickly. The falling Three Methods pattern is just the opposite.

## Pattern Flexibility

Because this pattern normally consists of five candle lines, it is somewhat rare to find in its classic form. Some leeway can be allowed in the range of the reaction days. They may go slightly above or below the range of the first day. It is best, if this is allowed, that they cover the range of the first day completely. If they do not and tend in one direction, the pattern can become a Mat Hold pattern, if it occurs in an uptrend.

## Pattern Breakdown

The Rising Three Methods pattern reduces to a long white candlestick, which fully supports the bullish continuation (Figure 4-50). The Falling Three Methods pattern reduces to a long black candlestick, which fully supports the bearish continuation (Figure 4-51).

Figure 4-50

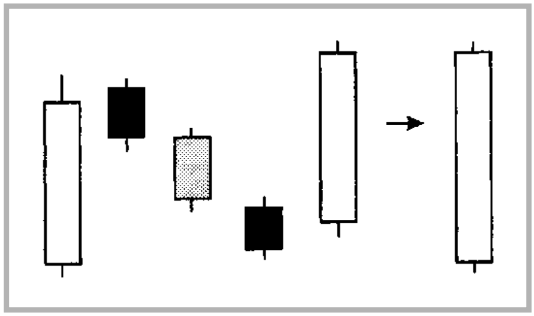
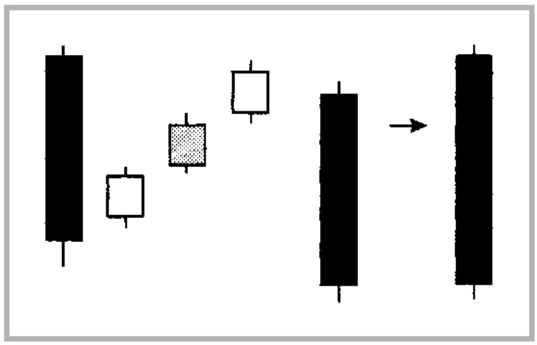


Figure 4-51



## Related Patterns

A pattern similar to the bullish Rising Three Methods is the Mat Hold pattern. It is also a bullish continuation pattern but allows greater flexibility in the reaction days. That is, the small black days that are between the two long white days do not have to be within the range of the first white day. Seeing the two patterns side-by-side will show that the uptrend was, and is, much stronger for the bullish Mat Hold pattern.

## Examples

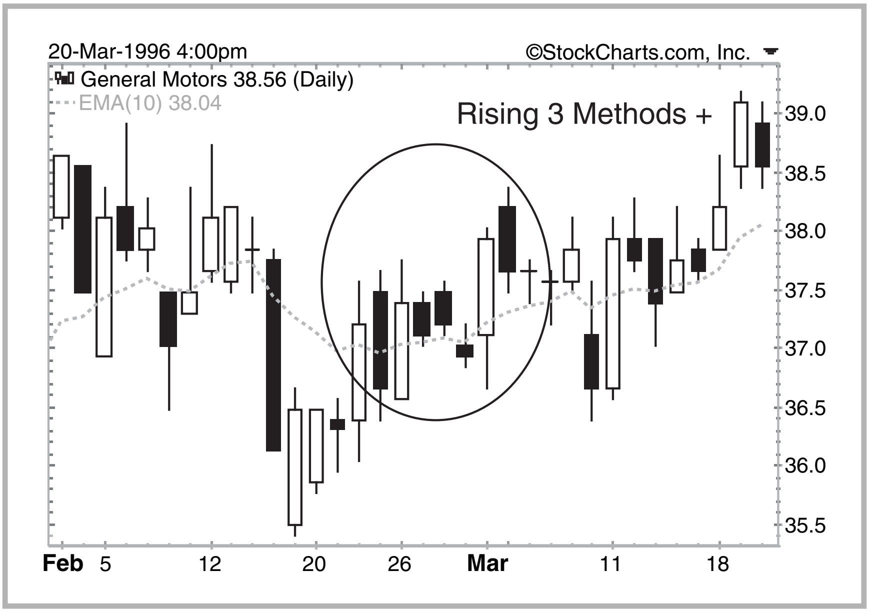



**Figure 4-52A**

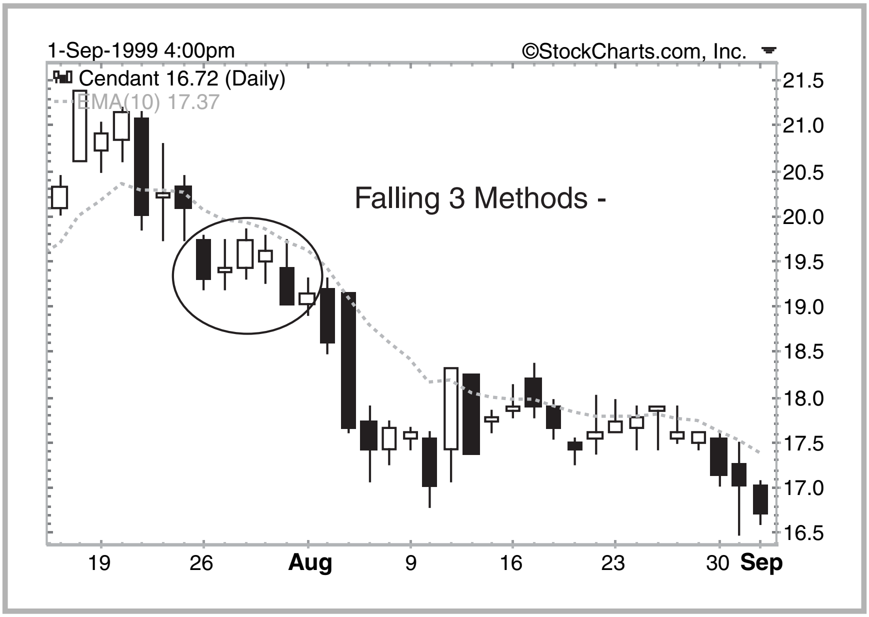



**Figure 4-52B**

## MAT HOLD

| Pattern Name: | Mat Hold + | | | | Type: C+ | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *uwa banare sante oshi* | | | | | | |
| Trend Required: | Yes | Confirmation: | | No | | | |
| Frequency (MDaysBP): | 55,303 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 45 | 49 | 51 | 52 | 54 | 54 | 53 |
| Avg. % Gain: | 2.50 | 3.86 | 4.88 | 5.36 | 5.96 | 5.91 | 6.13 |
| % Losers: | 55 | 51 | 49 | 48 | 46 | 46 | 47 |
| Avg. % Loss: | -1.99 | -3.04 | -3.13 | -4.21 | -4.69 | -4.60 | -4.84 |
| Net Profit / Net Loss: | 0.04 | 0.33 | 0.91 | 0.75 | 1.03 | 1.05 | 0.95 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | Mat Hold - | | | | **Type:** C- | | |
| **Japanese Name:** | *uwa banare sante oshi* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | Suggested | | | |
| **Frequency (MDaysBP):** | 96,689 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 50 | 46 | 45 | 52 | 48 | 49 | 48 |
| **Avg. % Gain:** | 3.07 | 4.30 | 5.20 | 5.14 | 5.69 | 6.65 | 7.03 |
| **% Losers:** | 50 | 54 | 55 | 48 | 52 | 51 | 52 |
| **Avg. % Loss:** | -2.54 | -3.73 | -4.46 | -5.08 | -5.74 | -6.54 | -7.61 |
| **Net Profit / Net Loss:** | 0.24 | -0.04 | -0.12 | 0.27 | -0.29 | -0.12 | -0.57 |

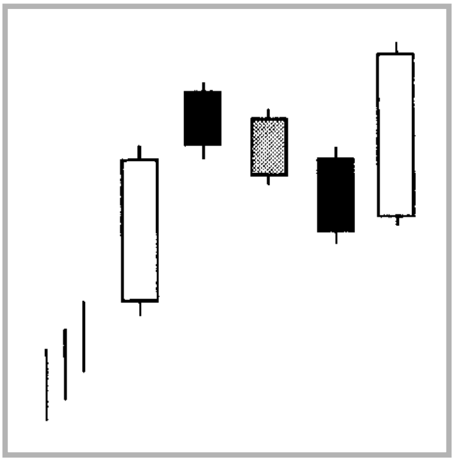
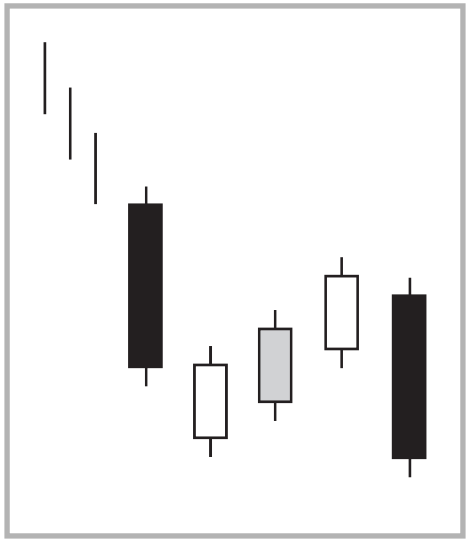


**Figure 4-53**

Figure 4-54



## Commentary

### *Bullish Mat Hold*

The bullish Mat Hold pattern is a modified version of the Rising Three Methods. The first three days start out like the Upside Gap Two Crows, with the exception that the second black body (third day) dips into the body of the first long white day (Figure 4-53). This is followed by another small black body that closes even lower, but still within the range of the first white body. The fifth day sees a large gap opening, with a strong rise to a close above the high of the highest of the three black days. This suggests that the trend will continue upward and that new positions can be taken here.

The bullish Mat Hold Pattern shows greater strength as a continuation signal than the Rising Three Methods. The reaction days are basically higher than the ones in the Rising Three Methods. In other words, the bullish Mat Hold does not take quite the rest, or break from trend, that the Rising Three methods does.

### *Bearish Mat Hold*

The bearish Mat Hold pattern (Figure 4-54) is a five-day bearish continuation pattern. It intends to capture the normal breaks or pauses that occur when a market is trending.

## Rules of Recognition

### *Bullish Mat Hold*

1. A long white day is formed in an uptrending market.
2. A gap up with a lower close on the second day forms almost a starlike day.
3. The following two days are reaction days similar to the Rising Three Methods.
4. The fifth day is a white day with a new closing high.

### *Bearish Mat Hold*

1. The pattern begins with a long black day that occurs during a downtrend.
2. The next day is a white day whose real body gaps away from the prior day's black real body.
3. Two relatively short days follow, with each making a higher top and bottom than the preceding day.
4. The fifth day is a long black day that opens below the close of the fourth day and then closes below the open of the second day.

## Scenarios and Psychology behind the Pattern

### *Bullish Mat Hold*

The market is continuing its rise, with a long white day confirming the bullish action. The next day prices gap open and trade in a small range, only to close slightly lower. This lower close (lower than the open) is still a new closing high for the move. The bulls have only rested, even though the price action surely brings out the bears. The next couple of days cause some concern that the upward move may be in jeopardy. These days open about where the market closed on the previous day and then close slightly lower. Even by the third such day, the market is still higher than the open of the first day (a long white day). An attitude that a reversal has failed develops and prices rise again to close at a new closing high. This fully supports the bulls' case that this was just a pause in a strong upward trend.

### *Bearish Mat Hold*

Days two, three, and four are the break in the trend, and you will notice that they never close above the open of the first day. So, by the end of day four, traders are beginning to think that any reversal of the downtrend has failed. When the fifth day closes below the open of the second day, the bears know that the prior three days were just a pause in a strong downward trend.

## Pattern Flexibility

The second, third, and fourth days of the pattern do not have any length of body requirements, so one or more of these days are commonly dojis. Additionally, the third and fourth days are permitted to be either white or black. Although white is preferred for both days, the fourth day is often black.

The first and fifth days must have long bodies. The body of a candlestick is the part between the open and the close. A long body is a body that occupies more than 50% of the high-low range.

The arrangement of the three small black days should show consecutive declines, much like the Rising Three Methods. The reaction days are altogether higher than those in the Rising Three Methods.

## Pattern Breakdown

The bullish Mat Hold pattern reduces to a long white candlestick, which fully supports its bullish continuation (Figure 4-55).

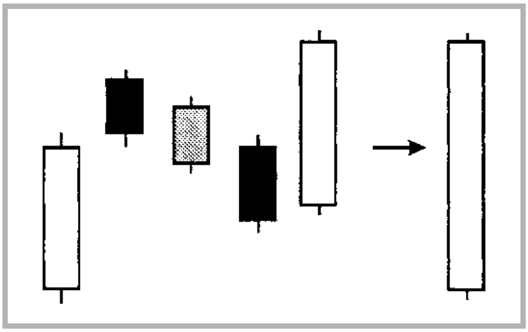


**Figure 4-55**

The bearish Mat Hold pattern reduces to a long black candlestick line with a long body. A long black candlestick line that occurs in a downtrend is bearish and supports the bearishness of the pattern.

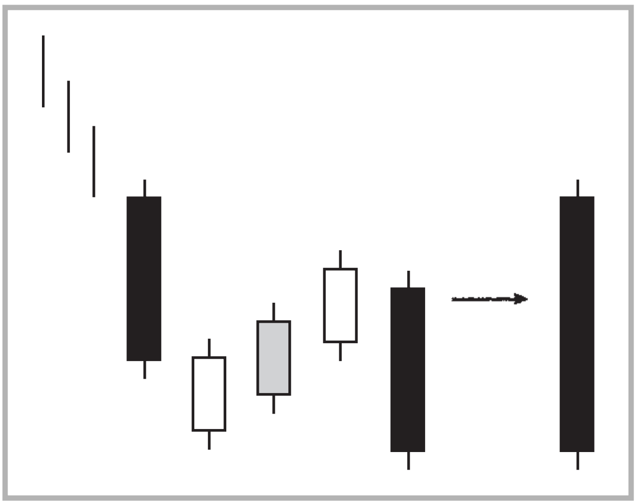


**Figure 4-56**

## Related Patterns

Rising Three Methods is a more rigid pattern. Even though this pattern begins somewhat like the Upside Gap Two Crows, the closing of the third day into the body of the first day eliminates that possibility. One must also be on guard for a possible Three Black Crows pattern starting with the second day, especially if it is a long day.

The bearish Mat Hold pattern is similar to the Falling Three Methods pattern.

## Examples

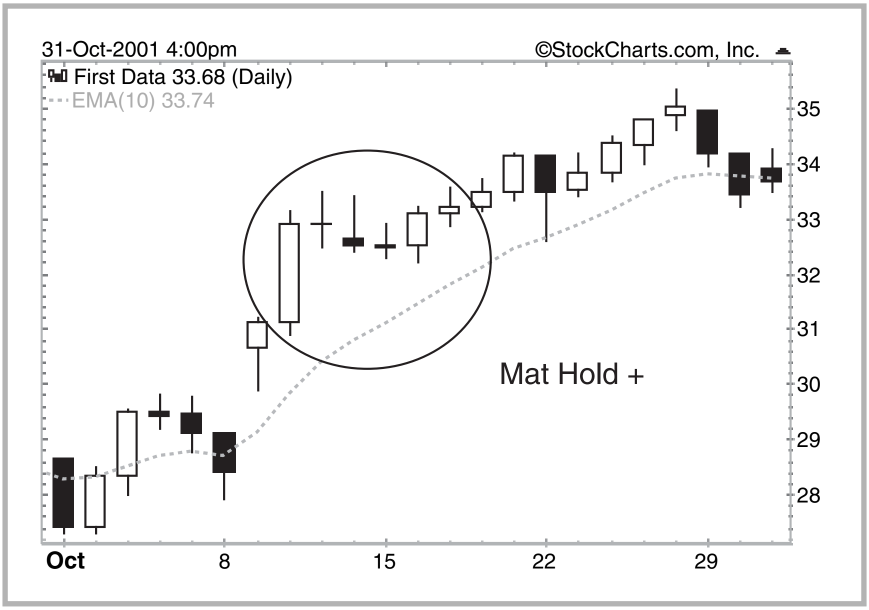



**Figure 4-57**

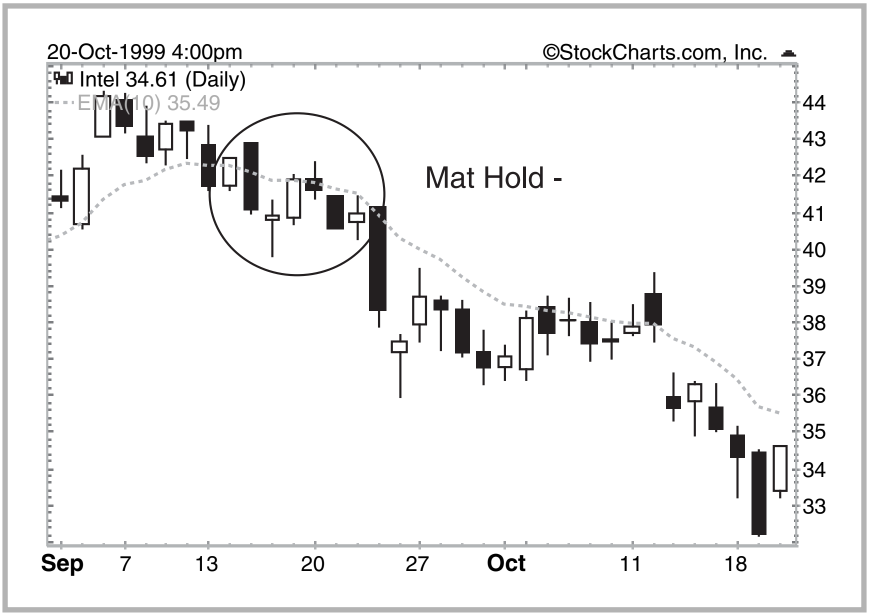



**Figure 4-58**

## THREE-LINE STRIKE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pattern Name:** | 3 Line Strike + | | | | | **Type:** C+ | |
| **Japanese Name:** | *sante uchi karasu no bake sen* | | | | | | |
| **Trend Required:** | Yes | **Confirmation:** | | No | | | |
| **Frequency (MDaysBP):** | 20,506 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| **Interval (Days)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **% Winners:** | 53 | 54 | 53 | 57 | 56 | 57 | 57 |
| **Avg. % Gain:** | 2.46 | 3.09 | 3.82 | 4.20 | 4.59 | 5.05 | 5.61 |
| **% Losers:** | 47 | 46 | 47 | 43 | 44 | 43 | 43 |
| **Avg. % Loss:** | -2.37 | -3.02 | -3.60 | -4.37 | -5.00 | -5.54 | -5.94 |
| **Net Profit / Net Loss:** | 0.18 | 0.28 | 0.33 | 0.49 | 0.35 | 0.53 | 0.66 |

| Pattern Name: | 3 Line Strike - | | | Type: C- | | | |
|---|---|---|---|---|---|---|---|
| Japanese Name: | *sante uchi karasu no bake sen* | | | | | | |
| Trend Required: | Yes | Confirmation: | | Suggested | | | |
| Frequency (MDaysBP): | 17,402 | Rare | | | | | |
| Pattern Statistics from 7275 Common Stocks with over 14.6 Million Days of Data | | | | | | | |
| Interval (Days) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| % Winners: | 53 | 51 | 52 | 51 | 51 | 52 | 53 |
| Avg. % Gain: | 2.79 | 3.98 | 4.57 | 5.37 | 5.93 | 6.39 | 6.87 |
| % Losers: | 47 | 49 | 48 | 49 | 49 | 48 | 47 |
| Avg. % Loss: | -3.02 | -4.03 | -5.13 | -5.45 | -5.74 | -6.94 | -7.07 |
| Net Profit / Net Loss: | 0.03 | 0.08 | -0.05 | 0.09 | 0.16 | -0.03 | 0.29 |

Figure 4-59

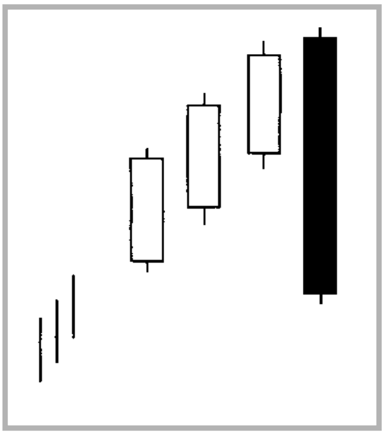
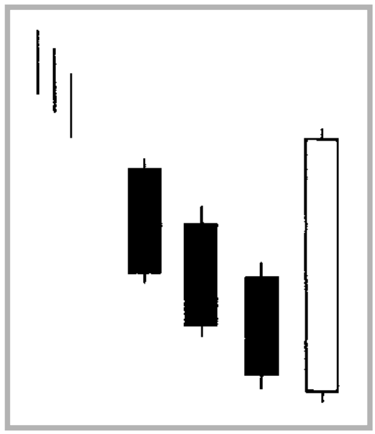


Figure 4-60



## Commentary

This is a four-line pattern that appears in a defined trend. It can be looked upon as an extended version of either the Three Black Crows pattern (bearish) or the Three White Soldiers pattern (bullish). This pattern is a resting or pausing pattern: the rest is accomplished in only one day. Breaks in trend are almost always healthy for the trend. Some Japanese literature refers to this pattern as the Fooling Three Crows for the bearish version. The bullish case could also be called Fooling Three Soldiers.

#### *Bullish Three-Line Strike*

Three white days with consecutively higher highs are followed by a long black day (Figure 4-59). This long black day opens at a new high and then plummets to a lower low than the first white day of the pattern. This type of action completely erases the previous three-day upward march. If the previous trend was strong, this should be looked upon as just a setback with some profit taking. This last day is considered a liquidating day, which will give the upward trend needed strength.

#### *Bearish Three-Line Strike*

A downtrend is accentuated by three black days that each have consecutively lower lows (Figure 4-60). The fourth day opens at a new low, then rallies to close above the high of the first black day. This last long white day completely negated the previous three black days. This day should be looked upon as a day when shorts were being covered, and the down move should continue.

### Rules of Recognition

#### *Bullish Three-Line Strike*

1. Three days resembling Three White Soldiers are continuing an uptrend.
2. A higher open on the fourth day drops to close below the open of the first white day.

***Bearish Three-Line Strike***

1. Three days resembling Three Black Crows are continuing a downtrend.
2. A lower open on the fourth day rallies to close above the open of the first black day.

## Scenarios and Psychology behind the Pattern

The market has continued in its trend, aided by the recent Three Black Crows or Three White Soldiers pattern, as the case may be. The fourth day opens in the direction of the trend, but profit taking or short covering causes the market to move strongly in the opposite direction. This action causes considerable soul searching, but remember that this move completely eradicated the previous three days. This surely dried up the short-term reversal sentiment and the trend should continue in its previous direction.

## Pattern Flexibility

The amount of the initial gap in the direction of trend and the amount that the fourth day moved would be strong indication of the success of this pattern as a continuation pattern.

## Pattern Breakdown

The bullish Three-Line Strike pattern reduces to a Shooting Star line and is in direct conflict with the bullishness of this pattern (Figure 4-61). The bearish Three-Line Strike pattern reduces to a Hammer and is also in direct conflict with this pattern's bearishness (Figure 4-62).

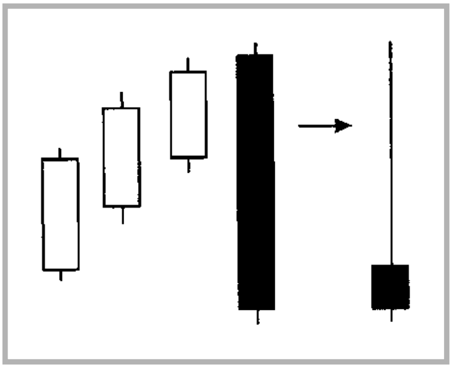


Figure 4-61

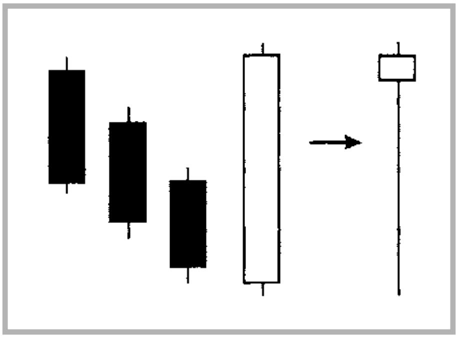


Figure 4-62

## Related Patterns

There is a hint of Three White Soldiers and Three Black Crows in these patterns, but their influence is quickly negated with the strong reaction day that follows.

## Examples

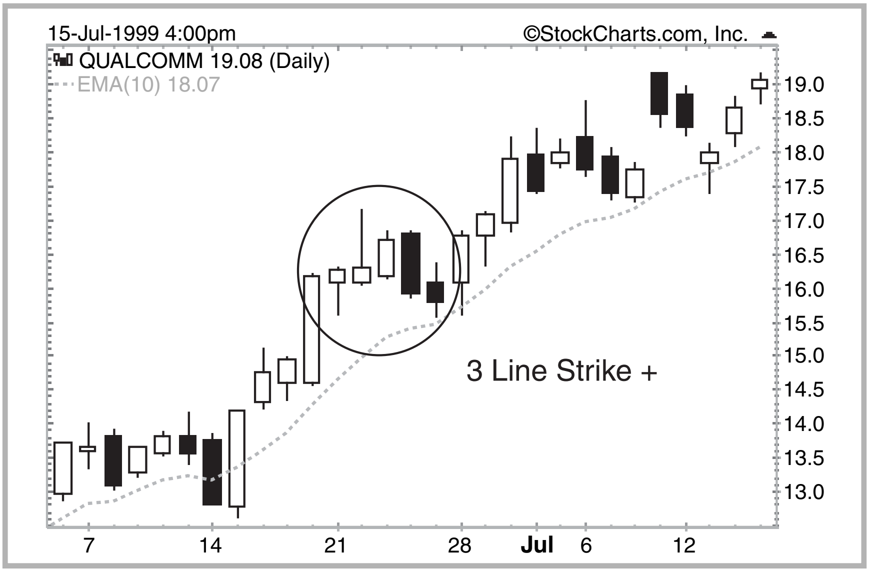



**Figure 4-63A**

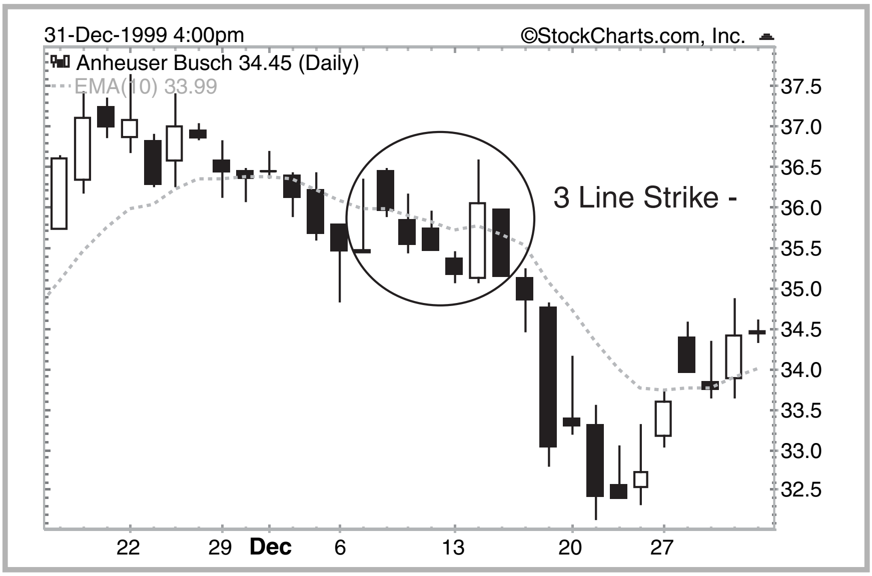



**Figure 4-63B**

CHAPTER FIVE

# Sakata's Method and Candle Formations

Japanese history, and Japanese financial trading history, in particular, is rich with accounts of success, usually dominated by only a few individuals. One such success was a man named Munehisa (Sohkyu) Honma. Some references use Sohkyu and some use Munehisa.

Honma stepped into Japanese futures trading history in the mid-eighteenth century. When Honma was given control of the wealthy family business in 1750, he began trading at the local rice exchange in the port city of Sakata in Dewa Province, now Yamagata Prefecture, on the west coast of northern Honshu (about 220 miles north of Tokyo). Sakata was a collection and distribution port for rice and today is still one of the most important ports on the Sea of Japan.

Stories have it that Honma established a personal communications network that consisted of men on rooftops spaced every four kilometers from Osaka to Sakata. The distance between Osaka and Sakata is about 380 miles, which would have required well over 100 men.

This allowed Honma the edge he needed to accumulate great wealth in rice trading.

Honma kept many records in order to learn about the psychology of investors. His studies helped him understand that the initial entry into a trade must not be rushed. According to Honma, if you feel compelled to rush into a trade because you believe that you just can't lose, wait three days to see if you still feel the same way. If you do, you can enter the trade, probably quite successfully.

The Honma Family owned a great rice field near Sakata and they were considered extremely wealthy in both fact and song. One folk song said that no man can be as wealthy as a Honma: one can merely hope to be as rich as a *daimyo*. A *daimyo* is the early Japanese term for a feudal lord.

Honma died in 1803. During this period of time a book was published. "If all other people are bullish, be foolish and sell rice" is some of the advice contained in *San-en Kinsen Horoku*. This book was published in 1755 and is known today as the basis of Japan's market philosophy. Today, in Sakata, a house that once belonged to the Honma family is the Honma Museum of Art.

All of the patterns and formations based upon Sakata's Method are taken from 160 rules that Honma wrote when he was 51 years old. Sakata's Method, in turn, is what is now considered the beginnings of candle pattern recognition. Candlestick charting was not actually developed by Honma, only the pattern philosophy that goes with it. His approach has been credited as the origin of current candlestick analysis.

Since Honma came from Sakata, you may see reference to Sakata's Law, the Sakata Method, Sakata's Five Methods, Honma Constitution, and similar names. While the labels may differ, the analysis technique remains the same. This book will refer to this approach as Sakata's Method.

## SAKATA'S METHOD

Sakata's Method, as originated and used by Honma for basic chart analysis, deals with the basic yin (*inn*) and yang (*yoh*) candle line along with two additional lines. The concept is centered around the number 3. The number 3 appears often in traditional analysis as well as in Japanese charting techniques. Sakata's Method is a technique of chart analysis using the number 3 at different points and times in the market. Sakata's Method can be summarized as:

*San-zan* (Three Mountains)

*San-sen* (Three Rivers)

*San-ku* (Three Gaps)

*San-pei* (Three Soldiers)

*San-poh* (Three Methods)

From this list it is should be obvious that san refers to the ubiquitous number 3.

### *SAN-ZAN* (THREE MOUNTAINS)

Three Mountains forms a line that makes a major top in the market. This is similar to the traditional Western triple-top formation in which the price rises and falls three times, forming a top. This formation is also similar to the Three Buddha Top (*san-son*) formation, which is the equivalent of the traditional head and shoulders formation. It comes from the positioning of three Buddhist images lined up, with a large Buddha in the center and a smaller one on each side. San-zan also includes the typical Western triple top where three upmoves

Figure 5-1A

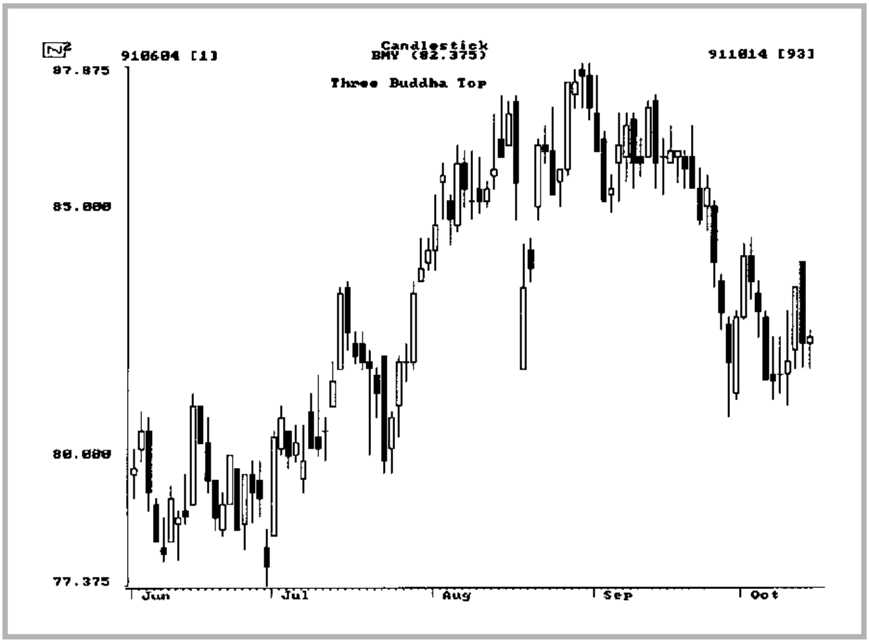
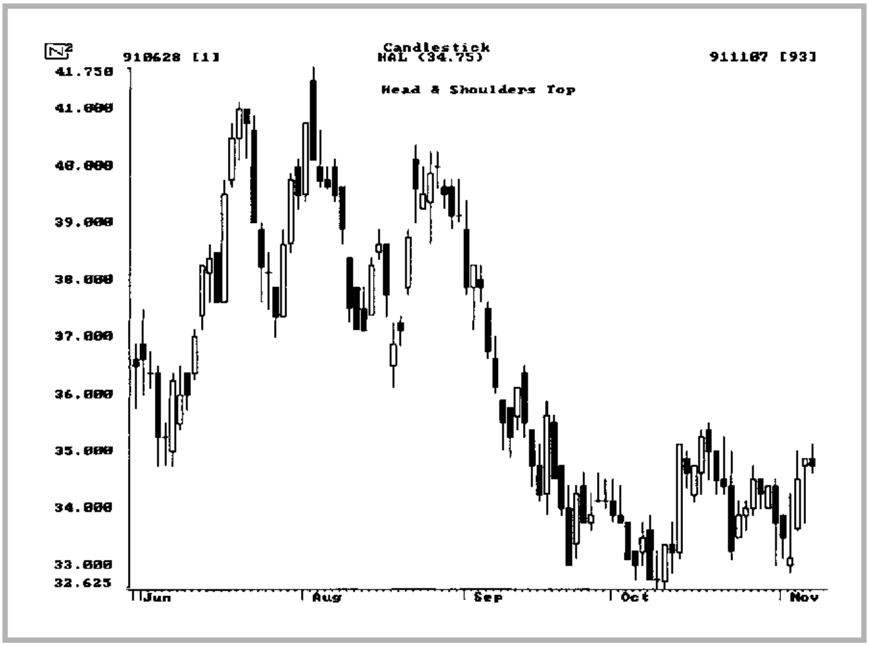



Figure 5-1B



are made with comparable corrections that follow. The three tops may be the same height or may be trending in one direction, most probably down.

## *SAN-SEN* (THREE RIVERS)

Three Rivers is the opposite of Three Mountains. It is often used like the traditional triple bottom or inverted head and shoulders bottom, but this not necessarily correct. The Three Rivers method is based on the theory of using three lines to forecast the turning point of the market. This can be seen in a number of bullish candle patterns using three lines, such as the Morning Star and Three White Soldiers. In Japanese literature, the Morning Star is often called the Three Rivers Morning Star in reference to this Sakata Method.

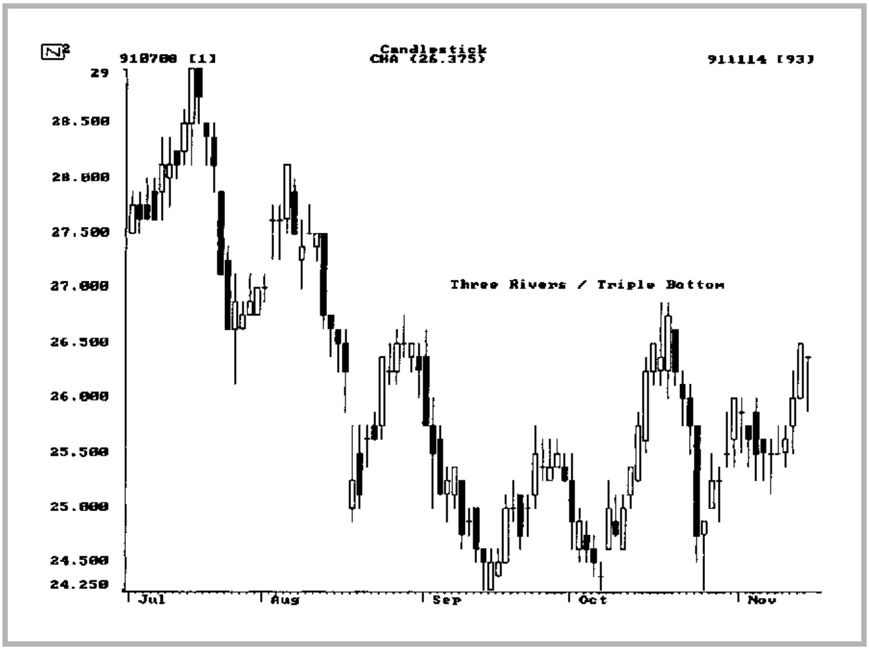
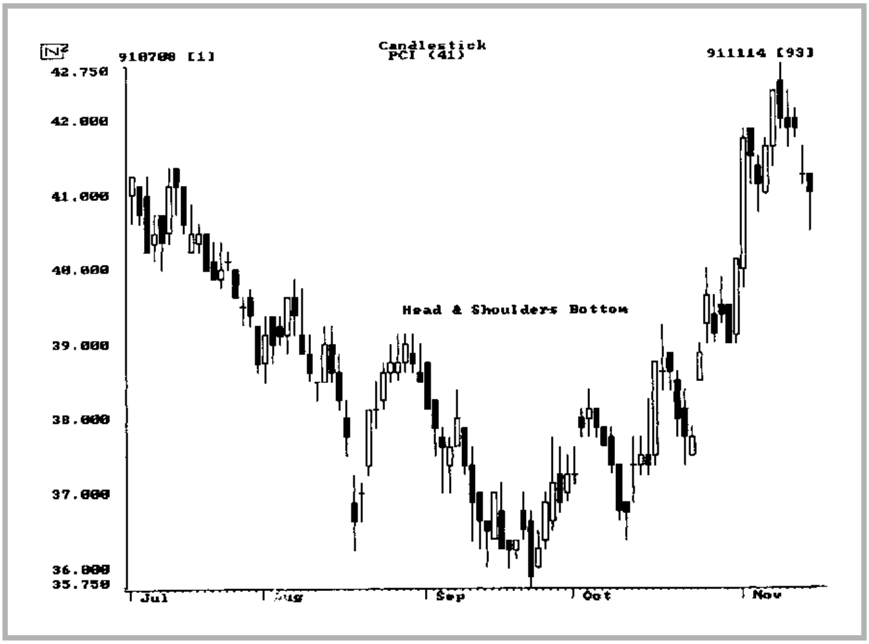



Figure 5-2A

**Figure 5-2B**




There is some confusion about whether Sakata's Method uses Three Rivers for a bottom formation technique or whether it refers to the use of three lines for identifying tops and bottoms. There is considerable reference in Japanese literature to Three Rivers Evening Stars (a bearish pattern) and the Three Rivers Upside Gap Two Crows (also a bearish pattern). Also recall from Chapter 3 that there was a bullish reversal pattern called the Unique Three Rivers Bottom.

## *SAN-KU* (THREE GAPS)

This method uses gaps in price action as a means to time entry and exit points in the market. The saying goes that after a market bottom,

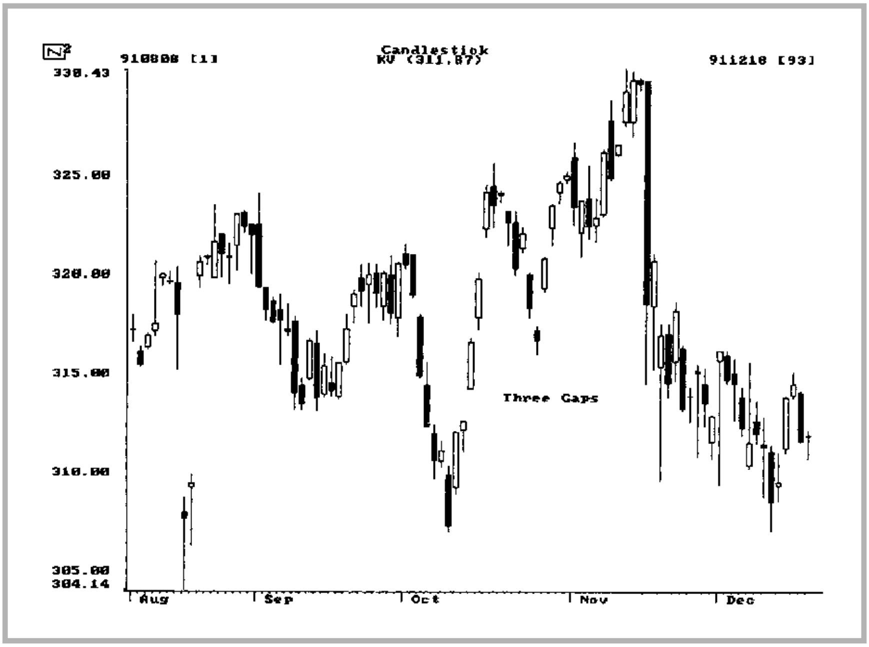



**Figure 5-3**


**Figure 5-4**

sell on the third gap. The first gap (*ku*) demonstrates the appearance of new buying with great force. The second gap represents additional buying and possibly some covering by the sophisticated bears. The third gap is the result of short covering by the reluctant bears and any delayed market orders for buying. Here, on the third gap, Sakata's Method recommends selling because of the conflict of orders and the possibility of reaching overbought conditions too soon. This same technique works in reverse for a downward gap in the market after a top. The Japanese term for filling a gap is *anaume*. Gaps (*ku*) are also called windows (*mado*) by the Japanese.

## *SAN-PEI* (THREE SOLDIERS)

*San-pei* means "three soldiers who are marching in the same direction." This is typified by the bullish Three White Soldiers candle pattern, which indicates a steady rise in the market. This steady type of price rise shows promise as a major move to the upside. Sakata's Method also shows how this pattern deteriorates and shows weakness in the market rise. These bearish variations to the bullish Three White Soldiers pattern are discussed next. The first variation of the Three White Soldiers pattern is the Advanced Block pattern, which is quite similar, except that the second and third white days have long upper shadows. The second variation of the Three White Soldiers pattern is the Deliberation (stalled) pattern, which also has a long upper shadow on the second day. However, the third day is a Spinning Top, and most likely a star. This suggests that a turnaround in the market is near.

Other patterns that make the *san-pei* method are the Three Black Crows and the Identical Three Crows pattern. Each of these candle patterns is bearish and indicates a weak market (Chapter 3).

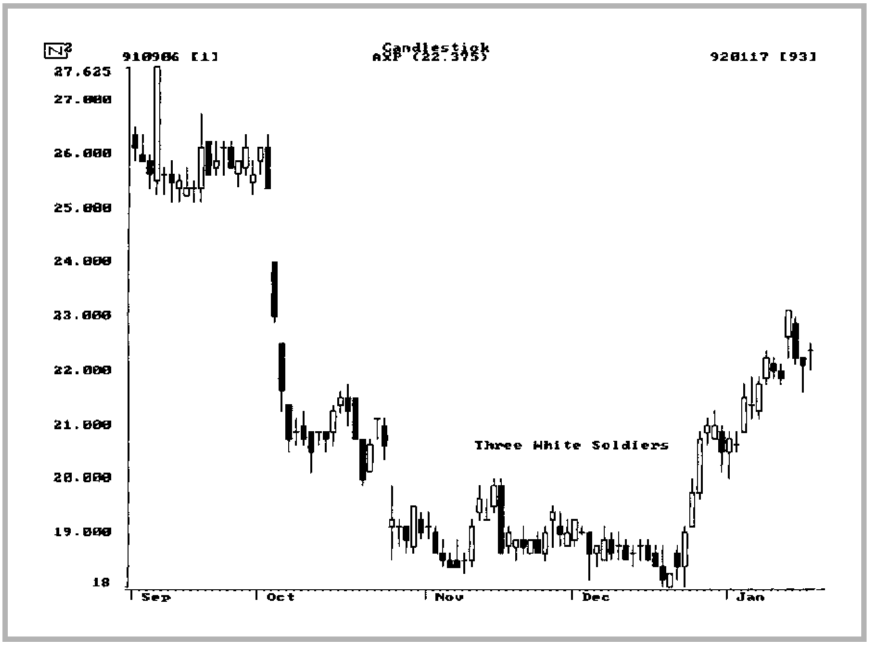



Figure 5-5


Figure 5-6

## *SAN-PON* (THREE METHODS)

*San-poh* means "a rest or cease-fire in market action." A popular saying "Buy, sell, and rest." Most traditional books on market psychology and trading suggest taking a break from the markets. This is necessary for many reasons, not the least of which is to get a perspective on the market while not having any money involved. *San-poh* involves the continuation patterns called the Rising Three methods and the Falling Three Methods (Chapter 4). Some sources also refer to two other patterns, the Upside Gap Three Methods and Downside Gap Three Methods, all discussed in Chapter 4.

The Rising and Falling Three Methods continuation patterns are resting patterns. The trend of the market is not broken, only pausing while preparing for another advance or decline.

Sakata's Method is intended to present a clear and confident way of looking at charts. Often Sakata's Method is presented along with the following simple philosophy.

1. In an up or down market, prices will continue to move in the established direction. This fact was instrumental in the development of candle pattern identification with a computer (Chapter 6).
2. It takes more force to cause a market to rise that to cause it to fall. This is related directly to the traditional saying that a market can fall due to its own weight.
3. A market that has risen will eventually fall, and a market that has fallen will eventually rise. As an article in the September 1991 issue of *Forbes* observed, in a bear market, it's smart to remind yourself that the world isn't coming to an end, and in bull market, it's smart to remind yourself that trees don't grow to the sky. A similar and more common analogy is that all good things must come to an end.

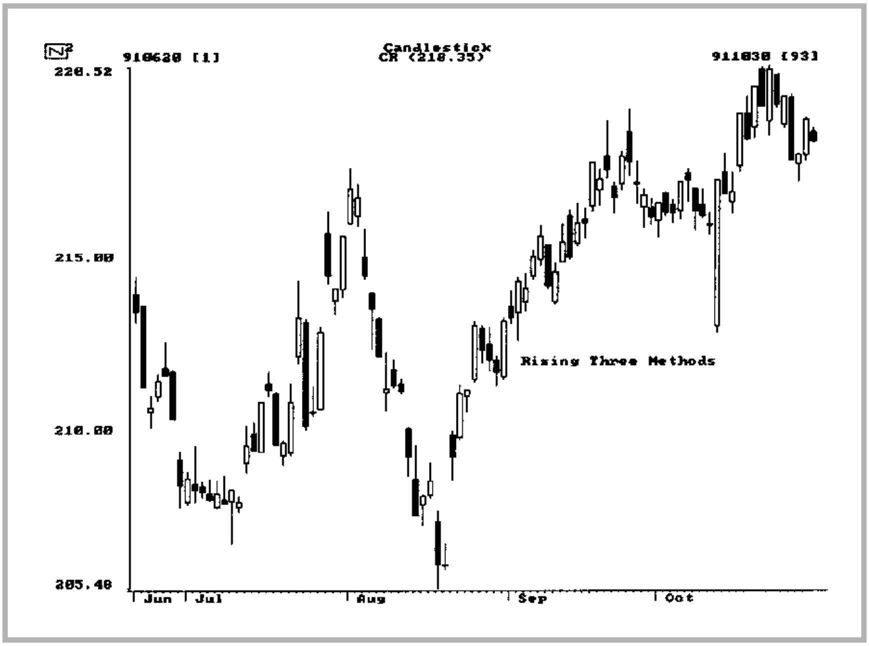



Figure 5-7

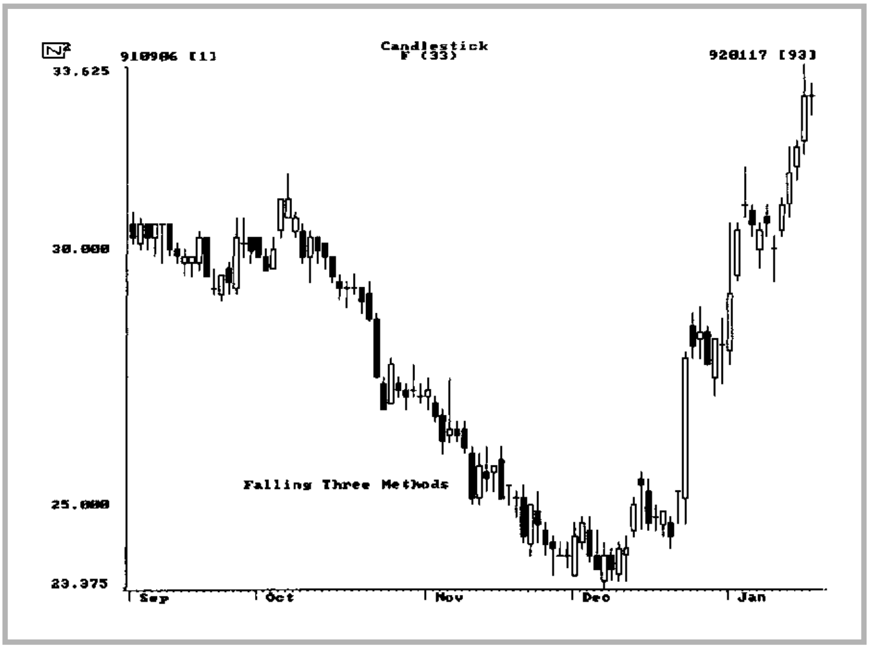



Figure 5-8

4. Market prices sometimes just stop moving completely. This refers to lateral trading, a time for all but the most nimble traders to stand aside.

Sakata's Method, while focusing on the number 3, also involves the use of broader formations in which numerous candle patterns may exist.

## CANDLE FORMATIONS

There are many Japanese candle formations that resemble price formations used in traditional technical analysis. Steve Nison coined many of the names commonly used in the West today. These formations can consist of many days of data. These formations are used as general market indicators and lack the precise timing that many investors and traders require. When a formation does evolve, look for additional evidence of price reversal, such as a reversal candle pattern. Some interference may occur when a formation takes shape over a long period of time. Remember that most candle patterns, and certainly almost all reversal candle patterns, require that they have a relationship with the current or previous trend. These trends are greatly influenced by the following candle formations.

### EIGHT NEW PRICE LINES (*SHINNE HATTE*)

This is a formation of continually rising prices in the market. After eight new price highs are set, one should take profits, or at least protect positions with stops. Action based on 10 new price highs, 12 new price highs, and 13 new price highs is also mentioned in some litera-

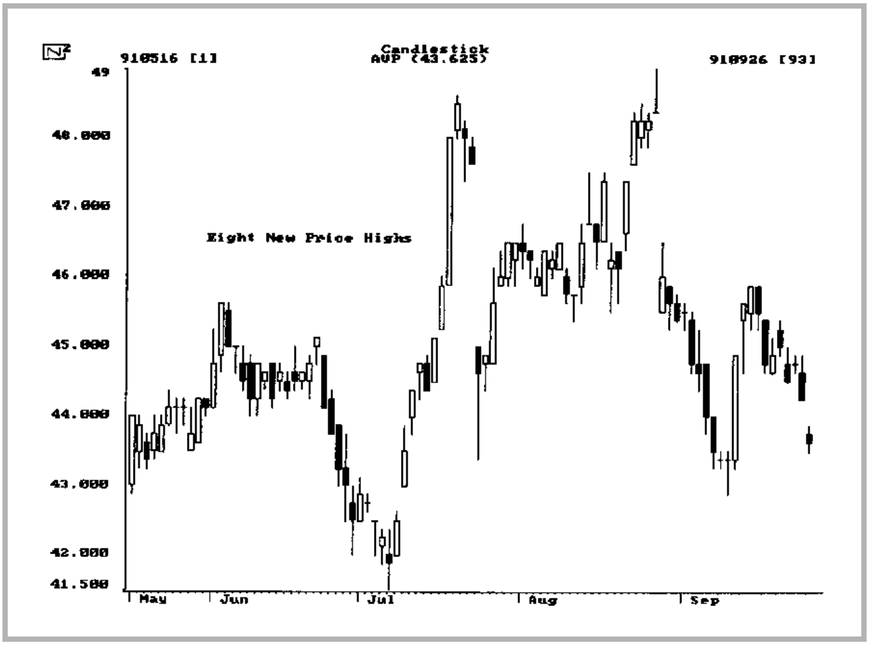



**Figure 5-9**

ture, but not recommended here. The previous market action should be taken into consideration before using this technique.

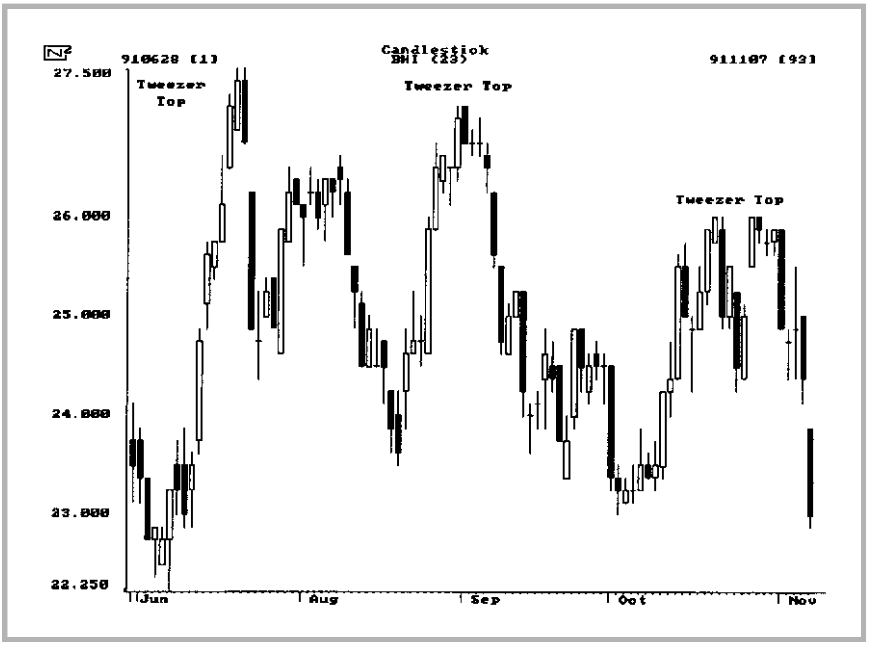
## TWEEZERS (*KENUKI*)

Tweezers is a relatively simple formation using the components of two or more daily candle lines to determine tops and bottoms. If the high of two days is equal, the formation is called a Tweezer Top (*kenukitenjo*). Likewise, if the low of two days is equal, it is called a Tweezer Bottom (*kenukizoko*). The high or low of these days may also coincide with the open or close. This means that one day could have a long upper shadow and the next day could be an Opening Marubozu with the open (also the high) equal to the high of the previous day. The Tweezer Top or Tweezer Bottom is not limited to just two days. Days of erratic movement could occur between the two days that make up the tweezer formation.

Tweezer Tops and Tweezer Bottoms are formations that will give short-term support and resistance. The terms support and resistance refer to prices that have previously turned the market. Support is a price base that stops market declines, and resistance is a level of prices that usually halts market rises. A good indication that Tweezer Tops and Tweezer Bottoms have succeeded occurs when they are also part of a reversal pattern. An example of this would be a Harami Cross in which the two highs (or lows) are equal.

Similar in concept to the Tweezers is the Matching Low and Stick Sandwich patterns discussed in Chapter 3. These two bullish reversal patterns are derivatives of the tweezer concept, except that the close

**Figure 5-10**



price is used exclusively, whereas the Tweezer may use any data component, such as high or low.

## HIGH WAVES (*TUKANE NOCHIAL*)

The High Waves formation can be seen in the upper shadows on a series of candle lines. After an uptrend, a series of days such as a Shooting Star, Spinning Tops, or Gravestone Doji can produce topping tendencies. This failure to close higher shows a loss of direction and can indicate a reversal in market direction. An Advance Block pattern could also be the beginning of a High Waves formation.


**Figure 5-11**

## TOWER TOP AND TOWER BOTTOM (*OHTENJYOU*)

Tower Tops and Tower Bottoms are made by long days that slowly change color and indicate a possible reversal. Tower Bottoms occur when the market is in a downtrend, along with many long black days, but not necessarily setting significantly lower prices as in the Three Black Crows pattern. These long black days eventually become white days, and even though a turnaround isn't obvious, new closing highs are eventually made. There is nothing to say that an occasional short day cannot be part of this reversal pattern. These short days usually happen during the transition from black o white days. Of course, the Tower Top is the exact opposite. The term Tower refers to the long days that help define this pattern. Some Japanese literature refers to this type of formation as a Turret Top when it occurs at peaks.

**Figure 5-12**

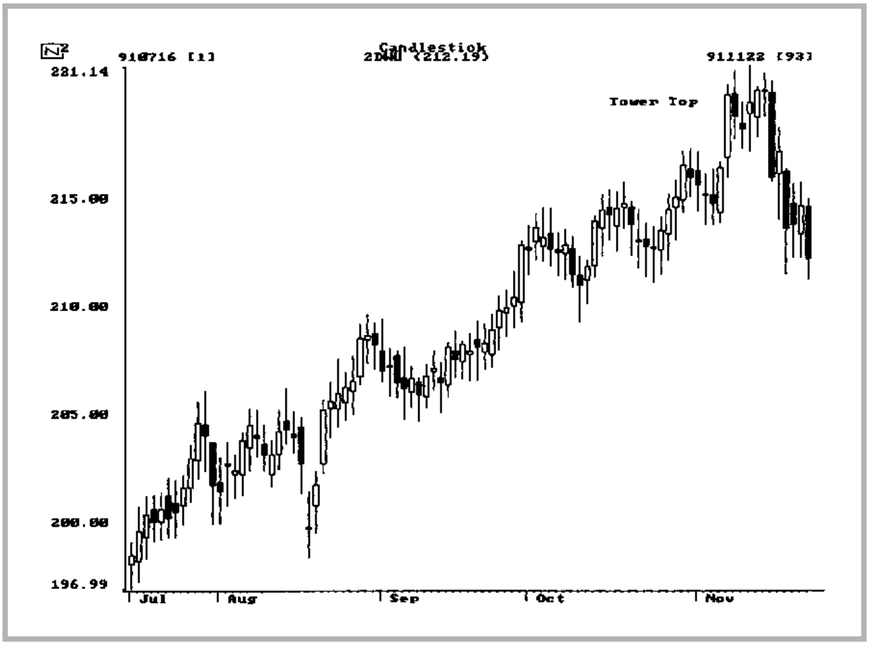



**Figure 5-13**

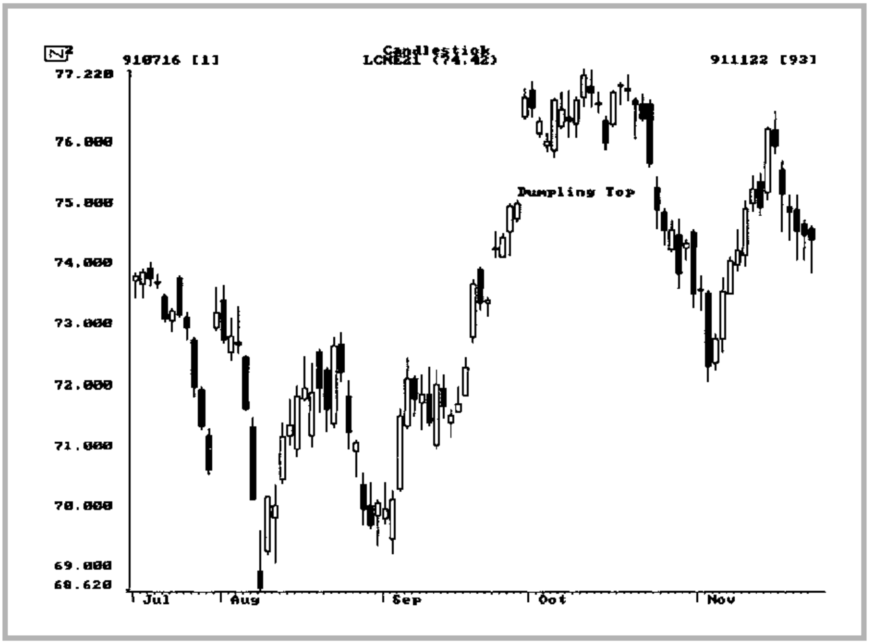
## FRY PAN BOTTOM (*NABEZOKO*)

The Fry Pan Bottom is similar to the Tower Bottom, except that the days are all small or short body days. The bottom formation is rounded and the colors are not as important. After a number of days of slowly rounding out the bottom, a gap is made with a white day. This confirms the reversal and an uptrend should begin. The name is derived from the scooping bottom of a frying pan with a long handle.

Dumpling Top is the counterpart of the Fry Pan Bottom formation. It is a rounded top similar to the rounded top in traditional technical jargon. The downtrend is confirmed by a gap to a back body. If the black day after the gap is a Belt Hold Line, the ability of this formation to predict future price movement is even better.

Figure 5-14


Figure 5-15



## HIGH PRICE GAPPING PLAY AND LOW PRICE GAPPING PLAY (*BOHTOH AND BOHRAKU*)

High and Low Price Gapping Plays are the Japanese equivalents of breakouts. As prices begin to consolidate near a support or resistance level, the indecision in the market becomes greater as time goes by. Once this range is broken, market direction is quickly resumed. If the breakout is caused by a gap in the same direction as the prices were trending before the consolidation, a further move in that direction is certain. Because of the subjective nature of these formations, the textbook cases will rarely be seen. Basically, they are the same as the Rising and Falling Three Methods and the Mat Hold, except that no clear arrangement of candlesticks can be used to define them.

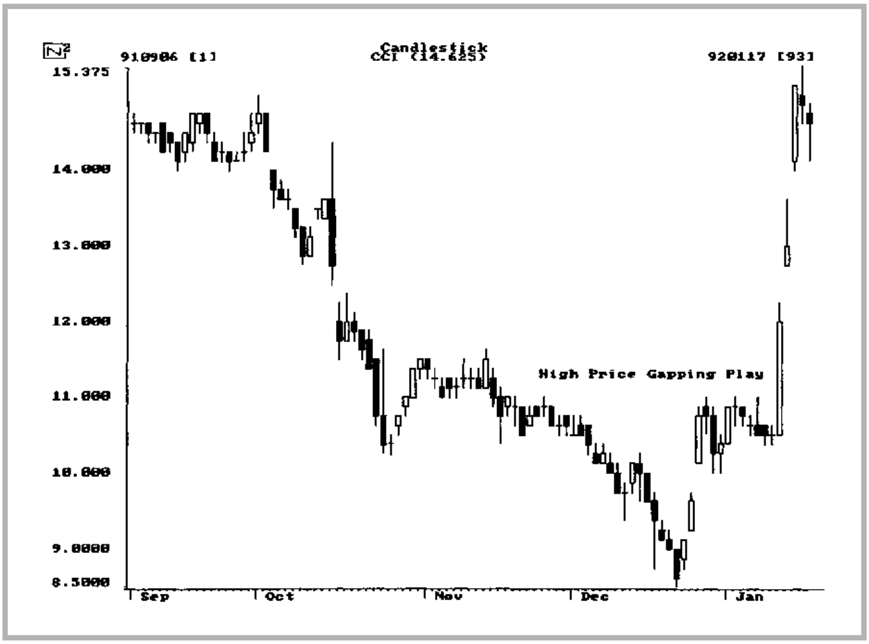
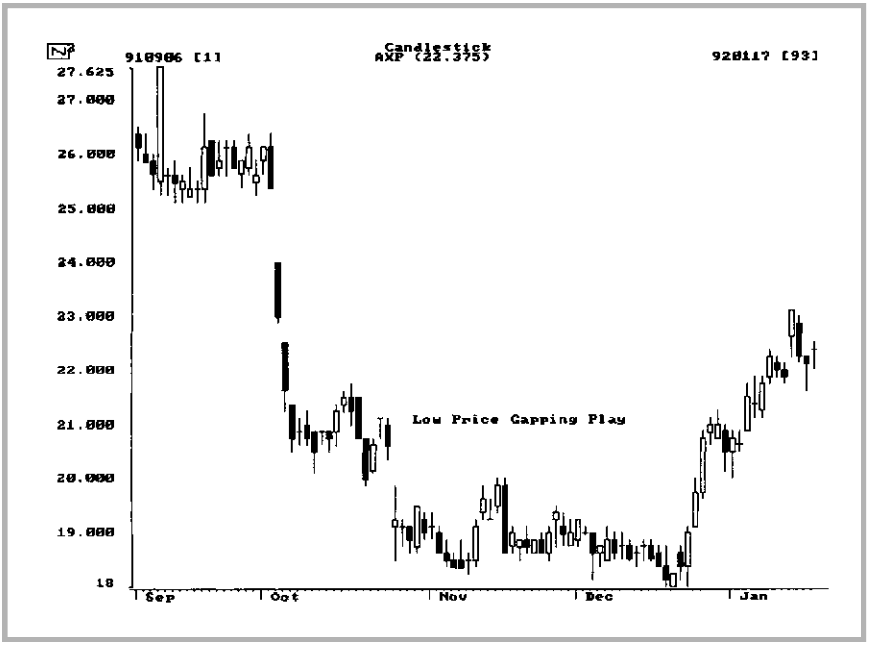



**Figure 5-16**

Figure 5-17


Candlestick
AXP (22.375)
910906 [1]
920117 [93]
27.625
27.000
26.000
25.000
24.000
23.000
22.000
21.000
20.000
19.000
18
Low Price Gapping Play
Sep
Oct
Nov
Dec
Jan

CHAPTER SIX

# The Philosophy behind Candle Pattern Identification

## DATA REQUIREMENTS, GAPS, AND RULES

Only daily price data, which consists of open, high, low, and close prices on a stock or commodity, is being used when explaining these concepts. Many times, the open price is not available on stocks. In such cases the previous day's closing price has been substituted. The exception to this is when the previous day's close is higher than today's high, today's high is used for the open. Similarly, when the previous day's close is lower than today's low, today's low is used as the open price. This allows the visibility of gaps from one day's close to the next day's range.

Gaps are an important part of candlestick analysis. To demonstrate that there is not much difference, the S&P 100 stocks with and without open price were tested and analyzed. Comprehensive testing was also accomplished on vast amounts of data that contained the open price to see if there was any statistical information about gaps that could be used when the open price was not available. Whenever a day's high and low prices were greater than the high price of the preceding day, a gap-up analysis was performed. Likewise, whenever a day's high and low price were less than the previous day's low price, a gap-down analysis was done. Once a "gap day" was identified, the following formula was used to determine the location of the open price relative to the day's range.

$$[(\text{Open} - \text{Low}) / (\text{High} - \text{Low})] * 100$$

The results showed consistency that the open price was 17% to 31% into the high-low range following a gap. If the gap was to the upside, the open price would fall about 17 to 28 percent above the low price. Similarly, if the gap was to the downside, the open price would fall 17 to 31 percent below the high price. Remember, these are just statistics calculated from a large amount of data, so the usual precautions are suggested.

One must also be aware that certain candle patterns cannot exist if there is no open price. That is, the previous day's close cannot be substituted for the open. The following candle patterns cannot exist when the open price is not available. This was first written in 1992 when opening price data was not readily available. Since then most data services provide opening prices on all stocks. Coincidentally or not, most of these services started providing open prices in the 1991 time frame.

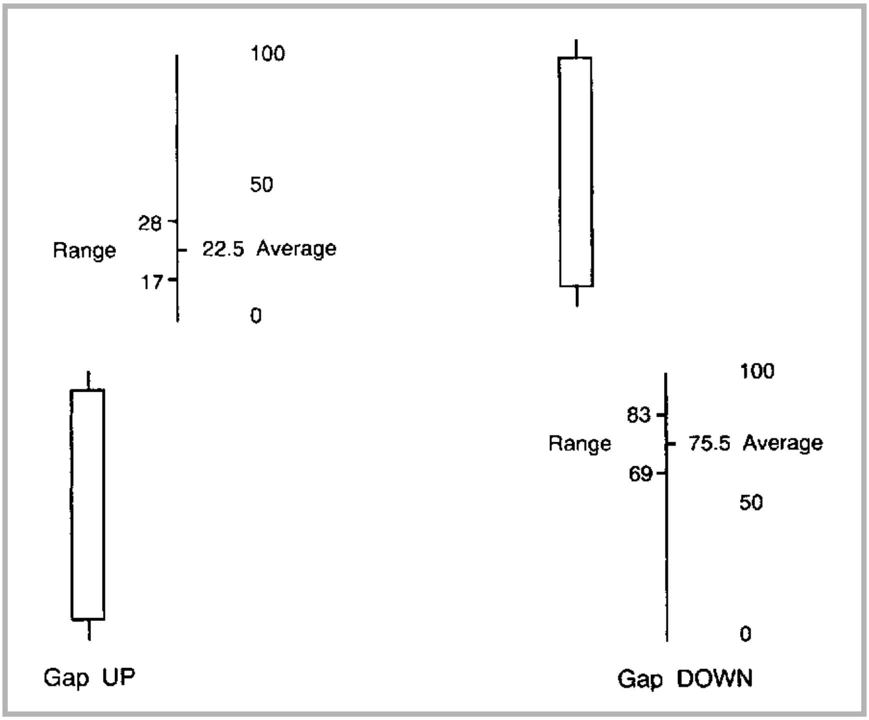



**Figure 6-1**

Inverted Hammer

Dark Cloud Cover

Piercing Line

Meeting Lines

Upside Gap Two Crows

Two Crows

Unique Three River Bottom

Kicking

Matching Low

Side-by-Side White Lines

Three Line Strike

In Neck Line

There are techniques that can be used in computerized candle pattern identification that will still allow these patterns to be used. For example, one could set some parameters that relate the data components from "greater than" to "greater than or equal to." As a result a requirement that the open of one day should be less than the close of the previous day could be modified so that the open could also be equal. Although this may stretch the philosophy of candle pattern recognition too far, it at least permits the use of data that does not contain the open price.

Today's electronic capabilities let traders watch intraday price movements from single trade ticks, one minute bars, and almost any other conceivable increment in between. It is not the purpose here to decide which type is better, but sometimes the trees do get in the way of the forest. One must also keep in mind that candle patterns reflect the short-term psychology of trading, including the decision process that occurs after a market is closed. This is why open and close prices are so important.

Using intraday data without the benefit of a break is questionable at the very least.

## THE IDEA

Pattern recognition has been around for many years. A computer can check and scan vast amounts of data and compile unlimited statistics on patterns and their ability to forecast prices. This approach never remains popular for very long because it is based solely on statistics and overlooks an important explanation of why some patterns are more successful than others—human psychology.

## ENTER HUMAN PSYCHOLOGY

In the first few minutes of the trading day, a great deal of overnight emotion is captured. Sometimes special events cause chaos. For example, on the New York Stock Exchange, it may take several minutes for the specialist to open a stock for trading because of a large order imbalance. However, once a stock or commodity does open, a point of reference has been established. From this reference point, trading decisions are made throughout the day.

As the trading day progresses, extremes are reached as speculator emotion is tossed around. These extremes of emotions are recorded as the high and low of the trading day. Finally, the trading day ends and the last trade is recorded as the closing price. This is the price that many will use to help make decisions about their positions and the tactics they will use at the open of the next trading day.

Aside from intraday data, four prices are normally available for the trader to analyze. One certainly knows the exact open and close prices for any trading day, but at what times during the day the high and low were reached, and in what order, are not known.

How does one determine the existence of a candlestick pattern?

Most candle patterns require the identification of not only the data relationship making the pattern, but also the trend immediately preceding the pattern. The trend is what sets up the psychology of traders for the candle pattern to develop. Most of the current literature somehow evades this essential ingredient to candle pattern recognition.

It must also be stated here that Japanese candlestick analysis is short-term (one to seven days) analysis. Any patterns that give longer-term results are surely just coincidental.

## TREND DETERMINATION

What is a trend? This question, if it could be answered in depth, could reveal the secrets of the marketplace. For this discussion, only a simple and highly reliable short-term answer is sought.

Trend analysis is a primary part of technical analysis. To some, trend identification is as important as the timing of reversal points in the market. Technical analysis books deal with the subject of trend quite thoroughly and define it in numerous ways. One of the most common approaches is the moving average.

### Moving Averages and Smoothing

One of the simplest market systems created, the moving average, works almost as well as the best of the complicated smoothing techniques. A moving average is exactly the same as a regular average except that it "moves" because it is continuously updated as new data becomes available. Each data point in a moving average is given equal weight in the computation, hence the term arithmetic or simple is sometimes used when referring to a moving average.

A moving average smooths a sequence of numbers so that the effects of short-term fluctuations are reduced, while those of longer-term fluctuations remain relatively unchanged. Obviously, the time span of the moving average will alter its characteristics.

J.M. Hurst in *The Profit Magic of Stock Transaction Timing* (1970) explained these alterations with three general rules:

1. A moving average of any given time span exactly reduces the magnitude of the fluctuations of durations equal to that time span to zero.
2. The same moving average also greatly reduces (but does not eliminate) the magnitude of all fluctuations of duration less than the time span of the moving average.
3. All fluctuations greater than the time span of the average "come through," or are present in the resulting moving average line. Those with durations just a little greater than the span of the average are greatly reduced in magnitude, but the effect lessens as periodicity duration increases. Very long duration periodicities come through nearly unscathed.

A somewhat more advanced smoothing technique is the exponential moving average. In principle, it accomplished the same thing as the simple (arithmetic) moving average. Exponential smoothing was developed to assist in radar tracking and flight path projection. A quicker projection of trend was needed with more influence from the most recent data. The formula for exponential smoothing appears complex, but is only another way of weighting the data components so that the most recent data receives the greatest weight. Even though only two data points are required to get exponentially smoothed value, the more data used the better. All of the data is used and is a part of the new results.

A simple explanation of exponential smoothing is therefore given here. An exponential average utilizes a smoothing constant that approximates the number of days for a simple moving average. This constant is multiplied by the difference between today's closing price and the previous day's moving average value. This new value is then added to the previous day's moving average value. The smoothing constant is equivalent to $2/(n + 1)$ where $n$ is the number of days used for a simple moving average.

### The Trend Method Used

After conducting numerous tests, a short-term exponential smoothing of the data was determined to best identify the short-term trend. It gives the best, easiest, and quickest determination of the short-term trend and is certainly a concept that one can understand. Simple concepts are usually more reliable and certainly more creditable.

Numerous tests were performed on vast amounts of data with the finding that the exponential period of 10 days seemed to work as well as any, especially when you recall that candlesticks have a short-term orientation.

## IDENTIFYING THE CANDLE PATTERNS

Previous chapters presented detailed descriptions of the exact relationships among the open, high, low, and close. Those chapters deal with the concept of trend use, while this chapter focuses on trend determination. In addition, a method of determining long days, short days, doji days, etc. is needed, including the relationship between the body and the shadows. The latter is essential for proper identification of patterns such as the Hanging Man and Hammer. The following sections will show the multitude of methods used to accomplish these and similar tasks.

## LONG DAYS

Any of three different methods are available, where each, or any combination, of the three can be used to determine long days. The tern minimum in these formulas refers to the minimum acceptable percentage for a long day. Any day whose body is greater than this minimum value will be considered a long day.

1. Long Body / Price – Minimum (0 to 100%)

This method will relate the day in question with the actual value of the price for a stock or commodity. If the value is set at 5% and the price is at 100, then a long day will be any whose range from open to close is 5 points or more. This method does not use any past data to determine a long day.

2. Long Body / High to Low Range – Minimum (0 to 100%)

This method uses the body length in relation to the high-low range for a given day under this technique. If a candle does not have long shadows, it is considered a long day. Used by itself, this is not the best method; used in conjunction with one or both of the other methods, it is good. This method will eliminate days that might appear more as Spinning Tops when viewed with the surrounding data.

3. Long Body / Average Body of Last *X* Days
– Minimum (0 to 100%)

An average of the body sizes of the last *X* days is used to determine a long body. The value for *X* should be anywhere between 5 and 10 days. If the percentage was set to 130, then a long day would be identified if it was 30% greater than this average. This method is good because it falls in line with the general concept of candlesticks and their use for short-term analysis.

## SHORT DAYS

The exact same concept for determining long days is used for short days with one exception; instead of minimum percentages, maximum percentages are used in the three formulas.

Small Body / Large Body Relationship

The Engulfing Pattern and Harami use both a large body and a small body for their patterns. This large body and small body concept is not the same as the long and short body concept discussed previously. Here the large and small bodies refer only to their relationship with one another. One must decide how much engulfing constitutes an Engulfing Pattern. If the concept is held to the letter of the law, then only one tick or minimum price movement is required to cause an engulfment. Can this be at just one end of the body when the prices are equal at the other end? In other words, can the open-to-close range be different by only one tick? The following formula will let you control this situation.

Small Body / Large Body – Maximum (0 to 100%)

This inverse of this value can be used for the Harami. It is recommended to use values that represent what could easily be identified if the determination were made visually. If a small body is engulfed by a large body by 70%, it means that the small body cannot exceed 70% of the size of the large body. Said another way, the large body is approximately 30% large than the small body.

## UMBRELLA DAYS

Remember, an umbrella day occurs when the body is at the upper end of the day's range and the lower shadow is considerably longer than the body. One must also take into consideration the length of the upper shadow, if one exists. The body and lower shadow relationship is defined as a percentage of the body length to lower shadow length.

Umbrella Body / Lower Shadow (0 to 100%)

If this value is set to 50, then the body cannot exceed 50% of the size of the lower shadow. In this example, the lower shadow would be at least twice the length of the body. The upper shadow on an umbrella day can be handled in a similar fashion, such as:

Umbrella Upper Shadow / High to Low Range (0 to 100%)

The upper shadow is related to the entire day's range. A value of 10 means that the upper shadow is only 10% (or less) of the high-low range. These variables will help identify the Hanging Man and Hammer candle patterns. Patterns such as the shooting Star and Inverted Hammer use just the inverse of these settings.

## DOJI DAYS

Doji occurs when the open and close prices are equal. This is an exceptionally restrictive rule for most types of data and should have some leeway when identifying candle patterns. The formula lets you set a percentage difference between the two prices that will be acceptable.

Doji Body / High to Low Range – Maximum (0 to 100%)

This value is a percentage maximum of the prices relative to the range of prices on the Doji day. A value in the neighborhood of 1 to 3% seems to work quite well.

## EQUAL VALUES

Equal values occur when prices are required to be equal. This is used for patterns like Meeting Lines and Separating Lines. Meeting Lines require that the close price of each day be equal; while Separating Lines require the open prices to be equal. The same concept used in determining a Doji day can be used here as well. There are a few instances when setting the parameters to the literal definition will restrict, rather than enhance, the pattern concept.

## COMPUTERIZED ANALYSIS AND ANOMALIES

The candle pattern statistics in Table 6-1 shows the amount of data used in this analysis, the type of data used, and various other pertinent statistics. All common stocks on the New York Stock Exchange, the Nasdaq market, and the American Stock Exchange were used over a 13-year period. Using stock data prior to late 1991 would distort the analysis because most data services did not provide open prices then. Any discrepancies in the summary statistics are because not all of those stocks traded for the full analysis period.

A total pattern frequency of slightly more than 11% equates to one candle pattern about every 9 trading days, 8.69 to be exact. This represents a good frequency for daily analysis of stocks and futures. Reversal patterns occur about 40 more times often than continuation patterns. This too is important, as it indicates the reversal of a trend caused by changed positions in trading. In this analysis, there were 65 reversal patterns and 23 continuation patterns, which make reversal patterns account for about 74% of all patterns.

It is also interesting to note that only five patterns account for about 6.7% of all patterns. Of this, the Harami pattern accounts for 46% of those five patterns and over 3% of all patterns. Also, please

**Table 6-1**

**Candle Pattern Statistics**

| | | | |
|---|---|---|---|
| Number of Common Stocks | 7275 | **Occurrences:** Total Times Pattern Appeared | |
| Number of Days | 14,600,000 | **Frequency:** % of Occurrences over sample | |
| Number of Years | 57,937 | **MdaysBP:** Mean Days between Patterns | |
| Number of Patterns | 1,680,149 | **Patts/Yr.:** Number of Patterns per Year | |
| Pattern Frequency | 8.69 | **MYearsBP:** Mean Years between Patterns | |

| Reversal Pattern | Type | Occurrences | Frequency | MDaysBP | Patts/Yr. | MYearsBP |
|---|---|---|---|---|---|---|
| Harami – | R– | 245424 | 1.68% | 59 | 4.2361 | 0.24 |
| Harami + | R+ | 212875 | 1.46% | 69 | 3.6743 | 0.27 |
| Engulfing – | R– | 200698 | 1.37% | 73 | 3.4641 | 0.29 |
| Engulfing + | R+ | 197612 | 1.35% | 74 | 3.4108 | 0.29 |
| Hanging Man – | R– | 125268 | 0.86% | 117 | 2.1622 | 0.46 |
| Hammer + | R+ | 51373 | 0.35% | 284 | 0.8867 | 1.13 |
| Hararmi Cross – | R– | 48891 | 0.33% | 299 | 0.8439 | 1.19 |
| 1 White Soldier + | R+ | 41181 | 0.28% | 355 | 0.7108 | 1.41 |
| Harami Cross + | R+ | 41171 | 0.28% | 355 | 0.7106 | 1.41 |
| Doji Star – | R– | 35082 | 0.24% | 416 | 0.6055 | 1.65 |
| 1 Black Crow – | R– | 32402 | 0.22% | 451 | 0.5593 | 1.79 |
| 3 Outside Up + | R+ | 32125 | 0.22% | 454 | 0.5545 | 1.8 |
| 3 Outside Down – | R– | 31115 | 0.21% | 469 | 0.5371 | 1.86 |
| 3 Inside Down – | R– | 29626 | 0.20% | 493 | 0.5114 | 1.96 |
| Matching High – | R– | 29237 | 0.20% | 499 | 0.5046 | 1.98 |
| 3 Inside Up + | R+ | 27529 | 0.19% | 530 | 0.4752 | 2.1 |
| Doji Star + | R+ | 27080 | 0.19% | 539 | 0.4674 | 2.14 |
| Descending Hawk – | R– | 26798 | 0.18% | 545 | 0.4625 | 2.16 |
| Matching Low + | R+ | 24726 | 0.17% | 590 | 0.4268 | 2.34 |
| Homing Pigeon + | R+ | 22514 | 0.15% | 648 | 0.3886 | 2.57 |
| Dark Cloud Cover – | R– | 16170 | 0.11% | 903 | 0.2791 | 3.58 |
| Squeeze Alert – | R– | 15694 | 0.11% | 930 | 0.2709 | 3.69 |
| Squeeze Alert + | R+ | 13963 | 0.10% | 1046 | 0.2410 | 4.15 |
| Piercing Line + | R+ | 12045 | 0.08% | 1212 | 0.2079 | 4.81 |
| Inverted Hammer + | R+ | 11907 | 0.08% | 1226 | 0.2055 | 4.87 |
| Deliberation – | R– | 11305 | 0.08% | 1291 | 0.1951 | 5.12 |
| Deliberation + | R+ | 8130 | 0.06% | 1796 | 0.1403 | 7.13 |
| 3 Black Crows – | R– | 6777 | 0.05% | 2154 | 0.1170 | 8.55 |
| 3 Gap Ups – | R– | 6020 | 0.04% | 2425 | 0.1039 | 9.62 |

**Table 6-1 (*Continued*)**
**Candle Pattern Statistics**

| Reversal Pattern | Type | Occurrences | Frequency | MDaysBP | Patts/Yr. | MYearsBP |
|---|---|---|---|---|---|---|
| Meeting Lines – | R– | 5344 | 0.04% | 2732 | 0.0922 | 10.84 |
| 3 White Soldiers + | R+ | 5055 | 0.03% | 2888 | 0.0873 | 11.46 |
| Morning Star + | R+ | 4902 | 0.03% | 2978 | 0.0846 | 11.82 |
| Meeting Lines + | R+ | 4661 | 0.03% | 3132 | 0.0805 | 12.43 |
| Evening Star – | R– | 4641 | 0.03% | 3146 | 0.0801 | 12.48 |
| Shooting Star – | R– | 4272 | 0.03% | 3418 | 0.0737 | 13.56 |
| 3 Gap Downs + | R+ | 4049 | 0.03% | 3606 | 0.0699 | 14.31 |
| Tri Star + | R+ | 2924 | 0.02% | 4993 | 0.0505 | 19.81 |
| Tri Star – | R– | 2912 | 0.02% | 5014 | 0.0503 | 19.9 |
| Kicking + | R+ | 2359 | 0.02% | 6189 | 0.0407 | 24.56 |
| Belt Hold + | R+ | 2258 | 0.02% | 6466 | 0.039 | 25.66 |
| Belt Hold – | R– | 2156 | 0.01% | 6772 | 0.0372 | 26.87 |
| Evening Doji Star – | R– | 2156 | 0.01% | 6772 | 0.0372 | 26.87 |
| Kicking – | R– | 2141 | 0.01% | 6819 | 0.037 | 27.06 |
| Morning Doji Star + | R+ | 2119 | 0.01% | 6890 | 0.0366 | 27.34 |
| Stick Sandwich. – | R– | 810 | 0.01% | 18025 | 0.014 | 71.53 |
| Stick Sandwich. + | R+ | 755 | 0.01% | 19338 | 0.013 | 76.74 |
| Ladder Top – | R– | 588 | 0.00% | 24830 | 0.0101 | 98.53 |
| Ladder Bottom + | R+ | 578 | 0.00% | 25260 | 0.010 | 100.24 |
| Two Crows – | R– | 421 | 0.00% | 34679 | 0.0073 | 137.62 |
| Descending Block + | R+ | 417 | 0.00% | 35012 | 0.0072 | 138.94 |
| Two Rabbits + | R+ | 304 | 0.00% | 48026 | 0.0052 | 190.58 |
| Concealing Baby Swallow + | R+ | 247 | 0.00% | 59109 | 0.0043 | 234.56 |
| Advance Block – | R– | 240 | 0.00% | 60833 | 0.0041 | 241.4 |
| Abandoned Baby + | R+ | 166 | 0.00% | 87952 | 0.0029 | 349.02 |
| Abandoned Baby – | R– | 163 | 0.00% | 89571 | 0.0028 | 355.44 |
| Breakaway – | R– | 150 | 0.00% | 97333 | 0.0026 | 386.24 |
| Breakaway + | R+ | 150 | 0.00% | 97333 | 0.0026 | 386.24 |
| 3 Down Gap Up + | R+ | 98 | 0.00% | 148980 | 0.0017 | 591.19 |
| 3 Up Gap Dn – | R– | 88 | 0.00% | 165909 | 0.0015 | 658.37 |
| Upside Gap 2 Crows – | R– | 46 | 0.00% | 317391 | 0.0008 | 1259.49 |
| Unique 3 River Bottom + | R+ | 36 | 0.00% | 405556 | 0.0006 | 1609.35 |
| 3 Stars in the South + | R+ | 35 | 0.00% | 417143 | 0.0006 | 1655.33 |
| Unique 3 Mountain Top – | R– | 34 | 0.00% | 429412 | 0.0006 | 1704.01 |
| Downside Gap 2 Rabbits + | R+ | 33 | 0.00% | 442424 | 0.0006 | 1755.65 |
| 3 Stars in the North – | R– | 19 | 0.00% | 768421 | 0.0003 | 3049.29 |
| **Reversal Totals** | | 1,642,065 | 11.25% | | | |

**Table 6-1 (*Continued*)**
**Candle Pattern Statistics**

| Continuation Pattern | Type | Occurrences | Frequency | MDaysBP | Patts/Yr. | MYearsBP |
|---|---|---|---|---|---|---|
| Rest After Battle + | C+ | 11282 | 0.08% | 1294 | 0.1947 | 5.14 |
| Separating Lines – | C– | 2816 | 0.02% | 5185 | 0.0486 | 20.57 |
| Thrusting + | C+ | 2786 | 0.02% | 5240 | 0.0481 | 20.8 |
| Rising 3 Methods + | C+ | 2738 | 0.02% | 5332 | 0.0473 | 21.16 |
| Thrusting – | C– | 2594 | 0.02% | 5628 | 0.0448 | 22.33 |
| Separating Lines + | C+ | 2371 | 0.02% | 6158 | 0.0409 | 24.44 |
| On Neck Line + | C+ | 2207 | 0.02% | 6615 | 0.0381 | 26.25 |
| On Neck Line – | C– | 2113 | 0.01% | 6910 | 0.0365 | 27.42 |
| Falling 3 Methods – | C– | 1808 | 0.01% | 8075 | 0.0312 | 32.04 |
| Side by Side White Lines + | C+ | 896 | 0.01% | 16295 | 0.0155 | 64.66 |
| 3 Line Strike – | C– | 839 | 0.01% | 17402 | 0.0145 | 69.05 |
| Downside Gap 3 Methods – | C– | 795 | 0.01% | 18365 | 0.0137 | 72.88 |
| Upside Tasuki Gap + | C+ | 775 | 0.01% | 18839 | 0.0134 | 74.76 |
| Downside Tasuki Gap – | C– | 720 | 0.00% | 20278 | 0.0124 | 80.47 |
| 3 Line Strike + | C+ | 712 | 0.00% | 20506 | 0.0123 | 81.37 |
| Upside Gap 3 Methods + | C+ | 676 | 0.00% | 21598 | 0.0117 | 85.7 |
| Side by Side Black Lines – | C– | 571 | 0.00% | 25569 | 0.0099 | 101.46 |
| Side by Side Black Lines + | C+ | 519 | 0.00% | 28131 | 0.009 | 111.63 |
| Side by Side White Lines – | C– | 307 | 0.00% | 47557 | 0.0053 | 188.72 |
| Mat Hold + | C+ | 264 | 0.00% | 55303 | 0.0046 | 219.46 |
| Mat Hold – | C– | 151 | 0.00% | 96689 | 0.0026 | 383.69 |
| In Neck Line + | C+ | 83 | 0.00% | 175904 | 0.0014 | 698.03 |
| In Neck Line – | C– | 61 | 0.00% | 239344 | 0.0011 | 949.78 |
| **Continuation Totals** | | 38,084 | 0.26% | | | |
| **All Pattern Totals** | | 1,680,149 | 11.51% | | | |

note that some patterns occur quite infrequently. To assess whether or not they have any value, you should refer to the ranking statistics in Chapter 7. When a pattern occurs, you must understand that, statistically, the success or failure does not mean much. Success and/or failure of candle patterns is dealt with extensively in Chapter 7.

When a particular pattern appears only a few times in a large amount of data, you should realize that its success and/or failure is subject to the time period under study. Do not let statistics interfere with common sense, and certainly be alert for inaccuracies in the data. The number of occurrences gives confidence in the average value obtained. When dealing with small samples of data, it is how the individual values are distributed that is important. For example, if you had only 12 samples and they were all winners, you would be more interested than if there were only 5 or 6 winners.

Remember, candle patterns were used as a visual charting technique for hundreds of years. With computers there is no way to handle the subjectivity that classic chart reading offers. Another factor to consider when using computers is the quality of the graphics screen: its resolution. The screen consists of small dots of light known as pixel elements. If too much data is used, or if the range of the data is too great, then what might appear as equal on the screen would not be so numerically. The smallest size (width) horizontal line could have a price range within itself, not visible to the eye. Not only computer screens, but also computer-generated chart books could have this problem. This is why some flexibility must be built into the identification of, and definition of, the classic patterns.

Another computer anomaly arises in handling candle patterns that are within, or part of, another candle pattern. A computer will look at the data in chronological order, that is, old data first. As each day is added, a candle pattern may or may not be noted. When a pattern is identified, the results are stored and the process continues. If a bullish Engulfing Day is identified and the next day has a white body with a close greater than the first day of the Engulfing Day, a Three Outside Up pattern is noted and recorded. The data for statistics and testing has been acquired for both patterns. However, only the Three Outside Up pattern will be identified as a candle pattern if it is given higher priority.

CHAPTER SEVEN

# Reliability of Pattern Recognition

Using the identification philosophy developed in the previous chapter, one can now adapt a method of determining just how successful candle patterns are.

## MEASURES OF SUCCESS

The following three assumptions were used in measuring the success and/or failure of the many different candle patterns:

1. The pattern must, of course, be identified based upon its open, high, low, and close relationships.
2. For the pattern to be identified, the trend must be determined. This is interchangeable with the previous assumption; each must exist in the methodology.
3. Some basis of measurement must be established to determine the success or failure of the candle pattern.

To make a credible prediction, you either know the current trend or you do not. Both assumptions and possibilities have been used here.

## The Trend Is Known

Candle patterns fall into two general categories: those that indicate a reversal of the current trend and those that indicate trend continuation.

Each day (for each security), a prediction is made about whether the known trend will continue or reverse for each prediction interval. In other words, if today's close is above the exponential average (trend), then we assume that we are in an uptrend. The success or failure is measured by the change in this trend over the prediction interval. The prediction interval is the number of days into the future the success or failure was based upon. Prediction intervals refer to the time periods between the actual candle pattern and some point in the future. All of the analysis in this book uses daily data (versus weekly or intraday data) for the time intervals.

When a candle pattern occurs, it is offering a short-term forecast on the direction of the underlying market. The prediction interval is the number of days after the candle pattern that a determination is made as to whether or not the candle pattern was successful. A prediction interval is a time in the future that measures the candle pattern's forecasting ability.

Once a trend starts, the odds are that it will continue. Every student of science or engineering will recognize that this is nothing more than Newton's First Law of Motion, which says, every body continues in a state of rest or of uniform motion in a straight line unless it is compelled to change that state by forces applied to it. Simply said, it is easier for a market to continue its direction than to reverse its direction.

Therefore, the continuation of a trend is more common than the reversal of a trend. Remember, we are talking about the short-term future here.

If, at the prediction interval, the price is still above the trend, then the candle pattern was successful. Simply said: if, during the prediction interval, we are still in an uptrend, then it was deemed successful (Figure 7-1). If not, it was a failure. Figure 7-1 graphically shows the relationship of reversal and continuation patterns with the prediction interval. The relationship of pattern type with prediction interval is based upon the fact that the trend is known.

## The Trend Is Not Known

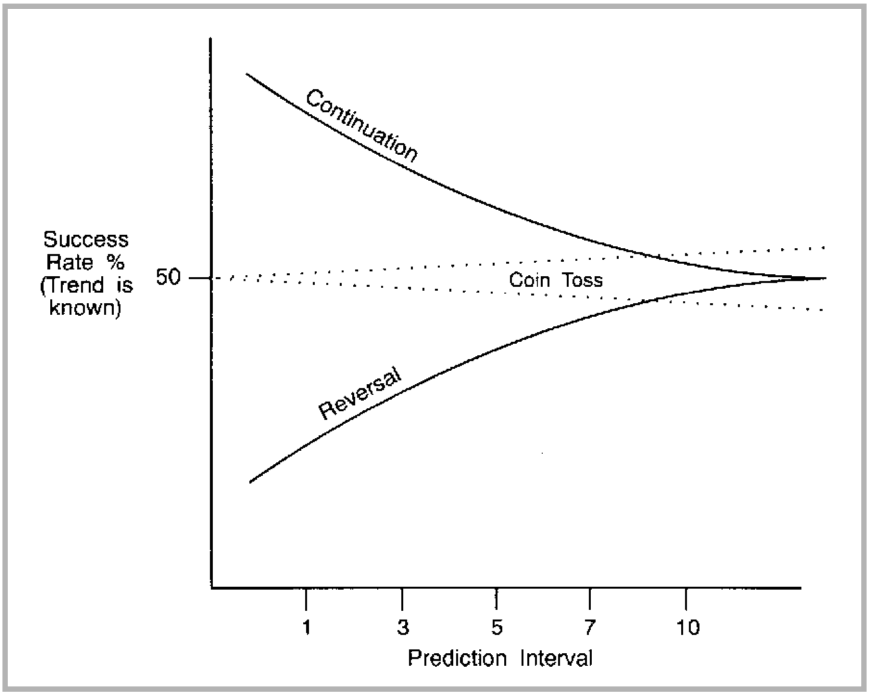



**Figure 7-1**

Sometimes you do not know what the trend is before making the prediction. In such cases, a coin-toss type of prediction is made about whether the price will go up or down. If you do not know the trend, the odds of its continuing or reversing would fall into the area of 50%. The difference above or below 50% would reflect the directional bias of the data used in the analysis. Again, the success or failure is based upon the price at the prediction interval relative to the change in trend. This fact is also shown in Figure 7-1. Remember, most candle patterns require that the trend be identified.

## Reverse Current Trend and Continue Current Trend

From the computer calculations, two primary parameters are determined: Reverse Current Trend and Continue Current Trend. These are further broken down into Up and Down trends (i.e., Reverse Current Trend Up and Reverse Current Trend Down).

The sum of Reverse Current Trend success and Continue Current Trend success will be equal to the number of days of data used in the testing process. Because a prediction is made each day, Reverse Current Trend success and Continue Current Trend failure would be equal. In other words, the success of Reverse Current Trend is also the failure of Continue Current Trend.

Reversal candle patterns (which most are) are compared to Reverse Current Trend and further broken down into upturns and downturns. Because reversal candle patterns must go against the very trend that defines them, their measure of success would not be as rigid as that of a continuation candle pattern. In fact, their measure of success could actually be less than that of a coin toss, since they are predicting a change in the current trend, a trend which is supposedly known.

Likewise, continuation candle patterns are compared to Continue Current Trend. Continuation candle patterns say that the trend that helped define them is going to continue. Therefore, for a continuation candle pattern to be considered successful, it must do better than the success of knowing the trend in the first place. Because we know the current trend and we know the odds are that the current trend will continue, to be useful, continuation candle patterns must be exceptionally good, or they are no better than the trend-identification process.

## CANDLE PATTERN STATISTICAL RANKING

Candle patterns are predictable psychological trading pictures (windows) that produce reasonable forecasting results when used in the proper manner. This section will explain the technique used to determine the various statistics developed to show the success of candle patterns. Note that no magnitude of success is used, only a relative success and failure. Keep in mind, though, that success still means that the pattern correctly predicted the market move and failure means that it did not.

Using all of the information about pattern recognition (including trend determination) developed in the previous chapters, we will now set out to see just how good candle patterns are. Because a simple approach is usually best, no elaborate assumptions were used, only the price change over various time intervals into the future. Those time intervals were measured in days.

Once the relative success or failure of a particular candle pattern was determined, its relationship to the appropriate pattern standard of measure was calculated. This standard of measure is the Reverse Current Trend and Continue Current Trend, discussed earlier. Recall that continuation candle patterns must outperform reversal candle patterns because of their trend relationship. That is why you will see many continuation candle patterns with a negative ranking, even though their success percentage was high.

## CANDLE PATTERNS RANKING ANALYSIS

While the analysis below uses adequate data, you must accept the fact that the results will probably change over different market conditions, amount of data used, and other factors that can influence security pricing.

There are two sets of data used for the ranking analysis, the first (short term) is data of just over two-and-one-half years in which the market was quite volatile. The time for this analysis is from April 30, 2002 to December 31, 2004, a total of 675 market trading days. The second analysis period (long term) was from November 29, 1991 to December 31, 2004, a period of 3300 market trading days. Going back further in history beyond 1991 can present some real problems with candle pattern analysis, as most data sources do not have accurate open price information. The data used for both analyses are the 2277 optionable stocks that are in the NYSE, Nasdaq, and Amex exchanges. Optionable stocks, those that have listed options available for trading, were chosen because of their liquidity.

### Shorter-Term Pattern Analysis (Apr. 30, 2002–Dec. 31, 2004)

Starting with the shorter analysis period, you can see from Figure 7-2, using the S&P 500 Index as a representative gauge that this was a period that reflected a lot of volatility in the marketplace, along with some good trending markets. It began with a strong declining market, followed by a triple bottom (head and shoulders pattern), then a good bull market ensued until early 2004. The year 2004 was a downward biased trading range that bottomed in late summer and rallied for the rest of the year.

The results of this analysis are presented in Tables 7-1 through 7-7. Each table shows the rankings of the patterns using a different time period for its determination. Table 7-1 uses an interval of 1 day

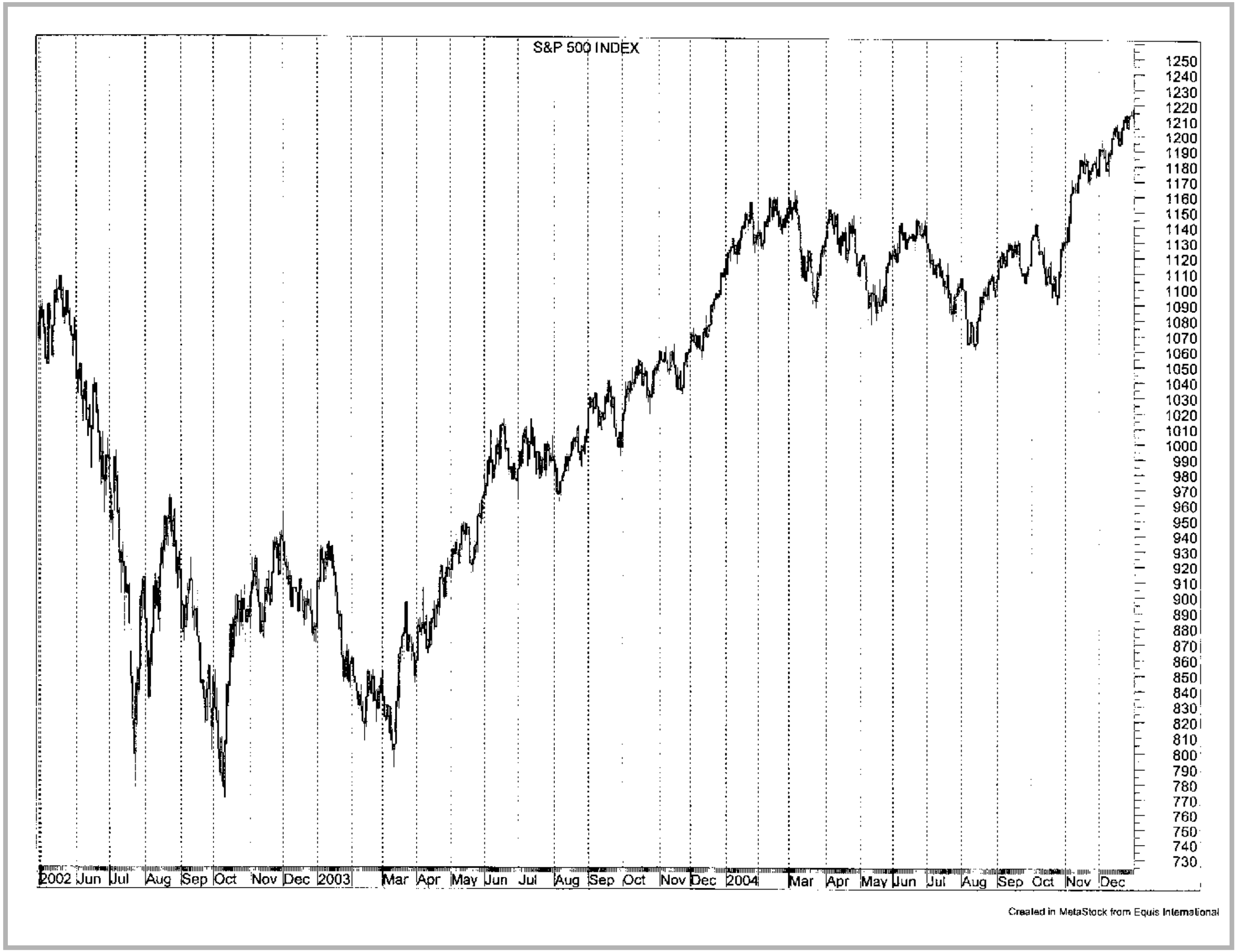



**Figure 7-2 S&P 500—2.6 years**

for its analysis. This means that the candle pattern was determined to be successful or not based upon the stocks' performance one day after the pattern was completed. There were 1,505,359 days of data in this analysis that generated 148,984 candle patterns. This gives an average of a candle pattern about every 10 days. Table 7-2 uses an interval of 2 days, Table 7-3 uses an interval of 3 days, and so on.

Why was the analysis only done using intervals up to and including 7 days in the future? It is the author's strong opinion that candle pattern analysis beyond that time frame is more coincidental than predictive. Candle pattern analysis is short term in nature. Any predictive value beyond that is purely coincidental. Remember, candle patterns are calling for a reversal or continuation of the trend. They are not predicting how long it will last.

Table 7-1 shows the rankings for a one-day interval. In other words, upon completion of the candle pattern, what was the stock doing one day later. If it was above the last day of the pattern, it was successful; if it was below the last day of the pattern, it was a failure. The bearish Kicking pattern had a 100% success rate (%Wins), but only had three occurrences in all of the data. Should this information be ignored because of its infrequency? No, just the use of other analysis tools to confirm it would be wise.

Out of 68 identified patterns, 28 of them were deemed to be successful based upon the ranking (%Rank) methodology discussed in a previous chapter. Notice that the bullish continuation (C+) pattern (No. 12), Separating Lines, had 57% Wins and a %Rank of 10, while the bearish reversal (R–) pattern (No. 13), Advance Block, also had a %Rank of 10, but its %Wins was 54%. Why would one pattern that is clearly better by 3% have the same rank? Because one is a continuation pattern (Separating Lines) and is saying that the very trend that helped to identify it is going to continue. Whereas the reversal pattern (Advance Block) was saying that the very trend that helped identify it is going to reverse.

*Remember:* A reversal candle pattern is saying that the very trend that helped identify it in the first place is going to change.

From the seven tables that follow, you can see that as the prediction interval increased the number of successful patterns also increased up to an interval of five days, then dropped back somewhat. The number of successful patterns for the one-day prediction interval was 28, whereas the number for the five-day interval was 37, a 13% increase in successful candle patterns. This further supports the belief by the author of the short-term nature of candle patterns.

Another valuable analysis to notice in these tables is how a particular pattern rises and falls in the rankings as the prediction interval increases. For example, let's use the best ranking pattern for the one-day prediction interval, the bearish Kicking pattern. Here is how it did over the seven rankings:

**Kicking (R–)**

| Interval | No. |
|---|---|
| 1 | 1 |
| 2 | 1 |
| 3 | 64 |
| 4 | 63 |
| 5 | 62 |
| 6 | 64 |
| 7 | 63 |

This is an extreme example, but the point is clear. The bearish Kicking pattern was accurate for the first two days, then failed for the remainder of the analysis. Because there were only three occurrences, this should not be overanalyzed, but the information given shows that it is only good for the very short term.

Now look at the bearish Separating Lines continuation pattern the same way.

## SEPARATING LINES (C–)

| Interval | No. |
|---|---|
| 1 | 4 |
| 2 | 4 |
| 3 | 9 |
| 4 | 3 |
| 5 | 8 |
| 6 | 3 |
| 7 | 1 |

This information shows that this pattern (bearish Separating Lines) performed well over the entire spectrum for the analysis. You can see that Matching High and Matching Low also had similar results, as did others.

Using the same analysis, look at the results of the bearish Meeting Lines reversal pattern.

## MEETING LINES (R–)

| Interval | No. |
|---|---|
| 1 | 41 |
| 2 | 63 |
| 3 | 53 |
| 4 | 48 |
| 5 | 31 |
| 6 | 8 |
| 7 | 8 |

This pattern showed improvement as the prediction interval increased. This would mean that is was better at predicting the reversal after a few days. Other patterns that follow this trend are the bearish Deliberation and the bullish Homing Pigeon.

**Table 7-1**
## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–1 Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | R– | Kicking– | 3 | 3 | 2.04 | 501786 | 100 | 105 |
| 2 | R– | Matching High– | 76 | 52 | 0.9 | 19807 | 68 | 40 |
| 3 | R+ | Matching Low+ | 51 | 35 | 2.15 | 29516 | 69 | 34 |
| 4 | C– | Separating Lines– | 19 | 12 | 0.06 | 79229 | 63 | 30 |
| 5 | R+ | Breakaway+ | 96 | 60 | 0.74 | 15680 | 63 | 22 |
| 6 | C– | DNside Gap 3 Methods– | 433 | 248 | 0.34 | 3476 | 57 | 17 |
| 7 | R+ | Kicking+ | 5 | 3 | –1.14 | 301071 | 60 | 17 |
| 8 | C+ | UPside Gap 3 Methods+ | 342 | 205 | 0.62 | 4401 | 60 | 17 |
| 9 | R+ | Concealing Swallow+ | 27 | 16 | 0.81 | 55754 | 59 | 16 |
| 10 | R+ | Inverted Hammer+ | 2896 | 1659 | 0.38 | 519 | 57 | 12 |
| 11 | C+ | Upside Tasuki Gap+ | 1735 | 994 | 0.38 | 867 | 57 | 12 |
| 12 | C+ | Separating Lines+ | 46 | 26 | 1.13 | 32725 | 57 | 10 |
| 13 | R– | Advance Block– | 151 | 81 | 0.13 | 9969 | 54 | 10 |
| 14 | C+ | Side/Side White Lines+ | 54 | 30 | 1.36 | 27877 | 56 | 8 |
| 15 | R– | Identical 3 Crows– | 36 | 19 | 0.09 | 41815 | 53 | 8 |
| 16 | R– | Shooting Star– | 501 | 262 | 0.25 | 3004 | 52 | 7 |
| 17 | R– | Hanging Man– | 15525 | 8042 | 0.03 | 96 | 52 | 6 |
| 18 | C– | Falling Three Methods– | 1805 | 934 | 0.18 | 833 | 52 | 6 |
| 19 | R– | Ladder Top– | 31 | 16 | 0.2 | 48559 | 52 | 6 |
| 20 | R+ | Doji Star+ | 578 | 313 | 0.49 | 2604 | 54 | 6 |
| 21 | C+ | Three Line Strike+ | 881 | 474 | 0.12 | 1708 | 54 | 5 |
| 22 | R+ | 3 Stars in the South+ | 62 | 33 | –0.06 | 24279 | 53 | 4 |
| 23 | R+ | Homing Pigeon+ | 5054 | 2681 | 0.2 | 297 | 53 | 4 |
| 24 | R+ | Tri-Star+ | 98 | 52 | 0.47 | 15360 | 53 | 4 |
| 25 | C– | Three Line Strike– | 937 | 471 | –0.02 | 1606 | 50 | 3 |
| 26 | R– | Evening Doji Star– | 197 | 98 | –0.18 | 7641 | 50 | 2 |
| 27 | C+ | In Neck Line+ | 611 | 319 | 0.13 | 2463 | 52 | 2 |
| 28 | C– | Downside Tasuki Gap– | 1881 | 928 | –0.04 | 800 | 49 | 1 |
| 29 | R+ | Harami+ | 13453 | 6883 | 0.08 | 111 | 51 | 0 |
| 30 | R– | Three Outside Down– | 4496 | 2184 | –0.06 | 334 | 49 | 0 |
| 31 | R– | Deliberation– | 430 | 208 | –0.01 | 3500 | 48 | –1 |
| 32 | R– | Dark Cloud Cover– | 3342 | 1615 | –0.14 | 450 | 48 | –1 |
| 33 | R+ | Harami Cross+ | 963 | 489 | –0.04 | 1563 | 51 | –1 |
| 34 | R+ | Three Outside Up+ | 3881 | 1949 | 0.04 | 387 | 50 | –2 |
| 35 | R– | Harami– | 16785 | 8010 | –0.13 | 89 | 48 | –2 |
| 36 | R+ | Abandoned Baby+ | 8 | 4 | 0.41 | 188169 | 50 | –2 |

**Table 7-1 (*Continued*)**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval—1<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | R– | Engulfing Pattern– | 16109 | 7661 | –0.04 | 93 | 48 | –2 |
| 38 | C+ | Rising Three Methods+ | 2704 | 1347 | 0.24 | 556 | 50 | –3 |
| 39 | R+ | Three Inside Up+ | 1277 | 636 | 0.01 | 1178 | 50 | –3 |
| 40 | R+ | Belt Hold+ | 1522 | 757 | 0.27 | 989 | 50 | –3 |
| 41 | R– | Meeting Lines– | 53 | 25 | 0.36 | 28403 | 47 | –3 |
| 42 | R+ | Long White Body+ | 2675 | 1312 | 0 | 562 | 49 | –4 |
| 43 | R+ | Piercing Line+ | 2422 | 1181 | –0.04 | 621 | 49 | –5 |
| 44 | R– | Belt Hold– | 2145 | 993 | –0.14 | 701 | 46 | –5 |
| 45 | R– | Doji Star– | 666 | 308 | –0.42 | 2260 | 46 | –5 |
| 46 | R+ | Engulfing Pattern+ | 13869 | 6737 | –0.02 | 108 | 49 | –5 |
| 47 | R– | Harami Cross– | 1078 | 497 | –0.28 | 1396 | 46 | –5 |
| 48 | R– | Long Black Body– | 3441 | 1585 | –0.09 | 437 | 46 | –6 |
| 49 | C+ | On Neck Line+ | 453 | 219 | 0.04 | 3323 | 48 | –6 |
| 50 | R– | Three Black Crows– | 497 | 228 | –0.21 | 3028 | 46 | –6 |
| 51 | C– | In Neck Line– | 440 | 199 | –0.18 | 3421 | 45 | –7 |
| 52 | R– | Two Crows– | 698 | 314 | –0.09 | 2156 | 45 | –8 |
| 53 | R+ | Hammer+ | 15108 | 7073 | –0.24 | 99 | 47 | –9 |
| 54 | R+ | Three White Soldiers+ | 380 | 178 | –0.25 | 3961 | 47 | –9 |
| 55 | R– | Upside Gap Two Crows– | 345 | 151 | –0.18 | 4363 | 44 | –10 |
| 56 | R– | Tri-Star– | 80 | 35 | –0.34 | 18816 | 44 | –10 |
| 57 | R– | Evening Star– | 1555 | 674 | –0.36 | 968 | 43 | –11 |
| 58 | R– | Three Inside Down– | 1320 | 570 | –0.19 | 1140 | 43 | –11 |
| 59 | C– | Side/Side White Lines– | 14 | 6 | –0.06 | 107525 | 43 | –12 |
| 60 | C– | On Neck Line– | 344 | 146 | –0.15 | 4376 | 42 | –13 |
| 61 | R+ | Morning Doji Star+ | 273 | 121 | –0.27 | 5514 | 44 | –13 |
| 62 | R– | Breakaway– | 129 | 54 | –0.41 | 11669 | 42 | –14 |
| 63 | R+ | Morning Star+ | 1815 | 784 | –0.42 | 829 | 43 | –16 |
| 64 | R+ | Unique 3 River Bottom+ | 10 | 4 | –0.42 | 150535 | 40 | –22 |
| 65 | R+ | Ladder Bottom+ | 60 | 19 | –1.27 | 25089 | 32 | –38 |
| 66 | R+ | Meeting Lines+ | 4 | 1 | –1.51 | 376339 | 25 | –51 |
| 67 | R+ | Stick Sandwich+ | 4 | 1 | –2.89 | 376339 | 25 | –51 |
| 68 | R– | Abandoned Baby– | 5 | 1 | –5.13 | 301071 | 20 | –59 |
| | | Totals | 148984 | 73225 | | | | |

**Table 7-2**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–2 Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | R– | Kicking– | 3 | 2 | –1.64 | 501786 | 67 | 48 |
| 2 | R– | Matching High– | 76 | 48 | 0.43 | 19807 | 63 | 40 |
| 3 | R+ | Breakaway+ | 96 | 72 | 1.76 | 15680 | 75 | 36 |
| 4 | C– | Separating Lines– | 19 | 10 | 0.33 | 79229 | 53 | 17 |
| 5 | C+ | Separating Lines+ | 46 | 29 | 1.58 | 32725 | 63 | 15 |
| 6 | R+ | Concealing Swallow+ | 27 | 17 | 1.76 | 55754 | 63 | 14 |
| 7 | C+ | UPside Gap 3 Methods+ | 342 | 208 | 0.8 | 4401 | 61 | 11 |
| 8 | C– | DNside Gap 3 Methods– | 433 | 216 | –0.01 | 3476 | 50 | 10 |
| 9 | R+ | Matching Low+ | 51 | 31 | 3.48 | 29516 | 61 | 10 |
| 10 | R+ | Doji Star+ | 578 | 349 | 1.11 | 2604 | 60 | 10 |
| 11 | R+ | Inverted Hammer+ | 2894 | 1730 | 0.92 | 520 | 60 | 9 |
| 12 | R– | Evening Doji Star– | 196 | 96 | –0.41 | 7680 | 49 | 8 |
| 13 | C+ | Upside Tasuki Gap+ | 1732 | 1027 | 0.74 | 869 | 59 | 8 |
| 14 | R– | Ladder Top– | 31 | 15 | –0.04 | 48559 | 48 | 7 |
| 15 | C+ | Three Line Strike+ | 881 | 518 | 0.53 | 1708 | 59 | 7 |
| 16 | R– | Hanging Man– | 15501 | 7466 | –0.35 | 97 | 48 | 7 |
| 17 | R– | Advance Block– | 150 | 72 | –0.27 | 10035 | 48 | 6 |
| 18 | C– | Falling Three Methods– | 1805 | 858 | –0.25 | 833 | 48 | 5 |
| 19 | R+ | Homing Pigeon+ | 5052 | 2930 | 0.72 | 297 | 58 | 5 |
| 20 | C– | Downside Tasuki Gap– | 1880 | 888 | –0.38 | 800 | 47 | 5 |
| 21 | C+ | Side/Side White Lines+ | 54 | 31 | 2.09 | 27877 | 57 | 4 |
| 22 | C– | In Neck Line– | 440 | 207 | –0.39 | 3421 | 47 | 4 |
| 23 | R– | Shooting Star– | 500 | 234 | –0.25 | 3010 | 47 | 4 |
| 24 | R– | Deliberation– | 428 | 199 | –0.21 | 3517 | 46 | 3 |
| 25 | C+ | In Neck Line+ | 610 | 345 | 0.67 | 2467 | 57 | 3 |
| 26 | C– | Three Line Strike– | 936 | 430 | –0.47 | 1608 | 46 | 2 |
| 27 | R+ | Three Outside Up+ | 3879 | 2168 | 0.67 | 388 | 56 | 1 |
| 28 | R+ | Harami+ | 13449 | 7399 | 0.53 | 111 | 55 | 0 |
| 29 | C+ | On Neck Line+ | 452 | 249 | 0.48 | 3330 | 55 | 0 |
| 30 | R– | Engulfing Pattern– | 16093 | 7238 | –0.35 | 93 | 45 | 0 |
| 31 | R+ | Belt Hold+ | 1521 | 833 | 0.79 | 989 | 55 | –1 |
| 32 | R– | Three Outside Down– | 4495 | 1997 | –0.46 | 334 | 44 | –2 |
| 33 | R– | Identical 3 Crows– | 36 | 16 | –0.32 | 41815 | 44 | –2 |
| 34 | R– | Long Black Body– | 3436 | 1524 | –0.45 | 438 | 44 | –2 |
| 35 | R– | Harami– | 16762 | 7360 | –0.47 | 89 | 44 | –3 |
| 36 | R+ | Long White Body+ | 2672 | 1423 | 0.43 | 563 | 53 | –3 |

**Table 7-2 (*Continued*)**
## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–2 Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | C+ | Rising Three Methods+ | 2700 | 1432 | 0.61 | 557 | 53 | –4 |
| 38 | R– | Two Crows– | 696 | 302 | –0.51 | 2162 | 43 | –4 |
| 39 | R+ | Three Inside Up+ | 1277 | 671 | 0.4 | 1178 | 53 | –5 |
| 40 | R+ | 3 Stars in the South+ | 61 | 32 | 0.03 | 24678 | 52 | –5 |
| 41 | R+ | Engulfing Pattern+ | 13851 | 7241 | 0.35 | 108 | 52 | –5 |
| 42 | R– | Doji Star– | 664 | 284 | –1.09 | 2267 | 43 | –5 |
| 43 | R– | Belt Hold– | 2142 | 916 | –0.53 | 702 | 43 | –5 |
| 44 | R+ | Tri-Star+ | 98 | 51 | 0.86 | 15360 | 52 | –5 |
| 45 | R– | Breakaway– | 129 | 55 | –0.64 | 11669 | 43 | –6 |
| 46 | R– | Dark Cloud Cover– | 3338 | 1420 | –0.5 | 450 | 43 | –6 |
| 47 | R+ | Three White Soldiers+ | 376 | 195 | 0.19 | 4003 | 52 | –6 |
| 48 | R– | Harami Cross– | 1076 | 456 | –0.67 | 1399 | 42 | –6 |
| 49 | R+ | Harami Cross+ | 962 | 493 | 0.32 | 1564 | 51 | –7 |
| 50 | R+ | Piercing Line+ | 2422 | 1240 | 0.3 | 621 | 51 | –7 |
| 51 | R– | Three Inside Down– | 1318 | 545 | –0.59 | 1142 | 41 | –8 |
| 52 | R+ | Abandoned Baby+ | 8 | 4 | 0.38 | 188169 | 50 | –9 |
| 53 | R+ | Meeting Lines+ | 4 | 2 | 0.9 | 376339 | 50 | –9 |
| 54 | R+ | Hammer+ | 15099 | 7521 | 0.1 | 99 | 50 | –9 |
| 55 | R– | Evening Star– | 1553 | 627 | –0.78 | 969 | 40 | –11 |
| 56 | R– | Three Black Crows– | 497 | 193 | –0.9 | 3028 | 39 | –14 |
| 57 | C– | On Neck Line– | 344 | 132 | –0.54 | 4376 | 38 | –15 |
| 58 | R+ | Ladder Bottom+ | 60 | 28 | –0.12 | 25089 | 47 | –15 |
| 59 | R– | Tri-Star– | 80 | 30 | –1.52 | 18816 | 38 | –17 |
| 60 | R– | Upside Gap Two Crows– | 345 | 127 | –0.76 | 4363 | 37 | –18 |
| 61 | R+ | Morning Star+ | 1815 | 809 | –0.21 | 829 | 45 | –19 |
| 62 | R+ | Morning Doji Star+ | 273 | 121 | –0.06 | 5514 | 44 | –19 |
| 63 | R– | Meeting Lines– | 53 | 18 | –0.9 | 28403 | 34 | –25 |
| 64 | R+ | Kicking+ | 5 | 2 | –0.96 | 301071 | 40 | –27 |
| 65 | R+ | Unique 3 River Bottom+ | 10 | 4 | –0.22 | 150535 | 40 | –27 |
| 66 | C– | Side/Side White Lines– | 14 | 4 | –0.36 | 107525 | 29 | –37 |
| 67 | R+ | Stick Sandwich+ | 4 | 1 | –7.58 | 376339 | 25 | –55 |
| 68 | R– | Abandoned Baby– | 5 | 1 | –6.51 | 301071 | 20 | –56 |
| | | Totals: | 148835 | 73192 | | | | |

**Table 7-3**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–3<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | R– | Matching High– | 76 | 50 | 0.6 | 19807 | 66 | 52 |
| 2 | R+ | Breakaway+ | 96 | 74 | 3.04 | 15680 | 77 | 36 |
| 3 | R+ | Matching Low+ | 51 | 34 | 5.24 | 29516 | 67 | 17 |
| 4 | R+ | Concealing Swallow+ | 27 | 18 | 2.1 | 55754 | 67 | 17 |
| 5 | R– | Advance Block– | 150 | 74 | –1.17 | 10035 | 49 | 14 |
| 6 | C– | DNside Gap 3 Methods– | 432 | 211 | –0.07 | 3484 | 49 | 13 |
| 7 | R+ | 3 Stars in the South+ | 61 | 39 | 0.89 | 24678 | 64 | 13 |
| 8 | R– | Ladder Top– | 31 | 15 | –0.05 | 48559 | 48 | 12 |
| 9 | C– | Separating Lines– | 19 | 9 | –0.02 | 79229 | 47 | 10 |
| 10 | R– | Identical 3 Crows– | 36 | 17 | –0.22 | 41815 | 47 | 10 |
| 11 | C+ | UPside Gap 3 Methods+ | 342 | 210 | 1.02 | 4401 | 61 | 8 |
| 12 | C+ | Side/Side White Lines+ | 54 | 33 | 2.68 | 27877 | 61 | 8 |
| 13 | R+ | Three White Soldiers+ | 376 | 230 | 0.54 | 4003 | 61 | 8 |
| 14 | R– | Hanging Man– | 15460 | 7172 | –0.61 | 97 | 46 | 7 |
| 15 | C+ | Three Line Strike+ | 880 | 537 | 0.89 | 1710 | 61 | 7 |
| 16 | C+ | Separating Lines+ | 46 | 28 | 1.69 | 32725 | 61 | 7 |
| 17 | R+ | Homing Pigeon+ | 5052 | 3052 | 1.04 | 297 | 60 | 6 |
| 18 | R+ | Doji Star+ | 576 | 347 | 1.44 | 2613 | 60 | 6 |
| 19 | C+ | Upside Tasuki Gap+ | 1729 | 1042 | 1.06 | 870 | 60 | 6 |
| 20 | R+ | Inverted Hammer+ | 2892 | 1741 | 1.28 | 520 | 60 | 6 |
| 21 | R+ | Kicking+ | 5 | 3 | –0.08 | 301071 | 60 | 6 |
| 22 | C– | Falling Three Methods– | 1804 | 814 | –0.57 | 834 | 45 | 5 |
| 23 | C+ | In Neck Line+ | 607 | 360 | 1.06 | 2479 | 59 | 4 |
| 24 | C+ | On Neck Line+ | 451 | 265 | 0.68 | 3337 | 59 | 3 |
| 25 | R– | Shooting Star– | 500 | 222 | –0.4 | 3010 | 44 | 3 |
| 26 | R– | Evening Doji Star– | 196 | 87 | –0.71 | 7680 | 44 | 3 |
| 27 | R+ | Three Outside Up+ | 3866 | 2243 | 0.96 | 389 | 58 | 2 |
| 28 | R+ | Harami+ | 13449 | 7733 | 0.89 | 111 | 57 | 1 |
| 29 | R– | Deliberation– | 427 | 186 | –0.53 | 3525 | 44 | 1 |
| 30 | R– | Engulfing Pattern– | 16084 | 6997 | –0.65 | 93 | 44 | 1 |
| 31 | R+ | Belt Hold+ | 1520 | 872 | 1.19 | 990 | 57 | 1 |
| 32 | R– | Three Outside Down– | 4493 | 1939 | –0.68 | 335 | 43 | 0 |
| 33 | C– | Downside Tasuki Gap– | 1880 | 808 | –0.71 | 800 | 43 | 0 |
| 34 | C– | In Neck Line– | 440 | 189 | –0.74 | 3421 | 43 | 0 |
| 35 | R– | Long Black Body– | 3431 | 1450 | –0.76 | 438 | 42 | –2 |
| 36 | R+ | Engulfing Pattern+ | 13845 | 7691 | 0.8 | 108 | 56 | –2 |

**Table 7-3 (*Continued*)**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval—3<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | R– | Doji Star– | 664 | 279 | –1.3 | 2267 | 42 | –3 |
| 38 | R+ | Long White Body+ | 2667 | 1477 | 0.72 | 564 | 55 | –3 |
| 39 | C+ | Rising Three Methods+ | 2689 | 1472 | 0.8 | 559 | 55 | –4 |
| 40 | R– | Harami– | 16655 | 6917 | –0.78 | 90 | 42 | –4 |
| 41 | R– | Two Crows– | 696 | 288 | –0.88 | 2162 | 41 | –4 |
| 42 | R– | Belt Hold– | 2135 | 878 | –0.76 | 705 | 41 | –5 |
| 43 | R+ | Piercing Line+ | 2422 | 1310 | 0.73 | 621 | 54 | –5 |
| 44 | R+ | Tri-Star+ | 98 | 53 | 1.71 | 15360 | 54 | –5 |
| 45 | R– | Harami Cross– | 1070 | 438 | –1.03 | 1406 | 41 | –5 |
| 46 | R– | Dark Cloud Cover– | 3328 | 1360 | –0.77 | 452 | 41 | –5 |
| 47 | R+ | Harami Cross+ | 962 | 513 | 0.63 | 1564 | 53 | –6 |
| 48 | R+ | Ladder Bottom+ | 60 | 32 | 0.48 | 25089 | 53 | –6 |
| 49 | R– | Breakaway– | 129 | 52 | –0.92 | 11669 | 40 | –6 |
| 50 | R– | Evening Star– | 1553 | 626 | –1.04 | 969 | 40 | –6 |
| 51 | R+ | Three Inside Up+ | 1273 | 677 | 0.7 | 1182 | 53 | –7 |
| 52 | R– | Three Inside Down– | 1318 | 527 | –0.91 | 1142 | 40 | –7 |
| 53 | R– | Meeting Lines– | 53 | 21 | –0.81 | 28403 | 40 | –8 |
| 54 | R+ | Hammer+ | 15095 | 7864 | 0.4 | 99 | 52 | –8 |
| 55 | R– | Upside Gap Two Crows– | 345 | 136 | –0.85 | 4363 | 39 | –9 |
| 56 | C– | On Neck Line– | 344 | 135 | –0.92 | 4376 | 39 | –9 |
| 57 | C– | Three Line Strike– | 934 | 367 | –1.12 | 1611 | 39 | –9 |
| 58 | C– | Side/Side White Lines– | 13 | 5 | –0.88 | 115796 | 38 | –11 |
| 59 | R+ | Meeting Lines+ | 4 | 2 | 5.02 | 376339 | 50 | –12 |
| 60 | R– | Tri-Star– | 80 | 30 | –2.59 | 18816 | 38 | –13 |
| 61 | R+ | Morning Star+ | 1814 | 868 | –0.05 | 829 | 48 | –16 |
| 62 | R– | Three Black Crows– | 497 | 179 | –1.36 | 3028 | 36 | –16 |
| 63 | R+ | Morning Doji Star+ | 273 | 127 | 0.28 | 5514 | 47 | –18 |
| 64 | R– | Kicking– | 3 | 1 | –3.21 | 501786 | 33 | –23 |
| 65 | R+ | Unique 3 River Bottom+ | 10 | 4 | 0.4 | 150535 | 40 | –30 |
| 66 | R– | Abandoned Baby– | 5 | 1 | –5.67 | 301071 | 20 | –54 |
| 67 | R+ | Stick Sandwich+ | 4 | 1 | –4.57 | 376339 | 25 | –56 |
| 68 | R+ | Abandoned Baby+ | 8 | 2 | –0.18 | 188169 | 25 | –56 |
| | | Totals: | 148585 | 73434 | | | | |

**Table 7-4**
## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–4<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | R– | Matching High– | 76 | 44 | 0.26 | 19807 | 58 | 38 |
| 2 | R+ | Breakaway+ | 96 | 76 | 3.4 | 15680 | 79 | 36 |
| 3 | C– | Separating Lines– | 19 | 10 | –0.02 | 79229 | 53 | 26 |
| 4 | R– | Ladder Top– | 31 | 16 | –0.4 | 48559 | 52 | 23 |
| 5 | C+ | Separating Lines+ | 46 | 33 | 1.92 | 32725 | 72 | 23 |
| 6 | C– | DNside Gap 3 Methods– | 432 | 208 | –0.27 | 3484 | 48 | 15 |
| 7 | R+ | Concealing Swallow+ | 27 | 18 | 2.92 | 55754 | 67 | 15 |
| 8 | R+ | Matching Low+ | 51 | 34 | 6.63 | 29516 | 67 | 15 |
| 9 | C+ | Side/Side White Lines+ | 54 | 36 | 3.31 | 27877 | 67 | 15 |
| 10 | C+ | Three Line Strike+ | 879 | 558 | 1.14 | 1712 | 63 | 9 |
| 11 | R– | Shooting Star– | 500 | 228 | –0.53 | 3010 | 46 | 9 |
| 12 | R+ | Inverted Hammer+ | 2891 | 1802 | 1.71 | 520 | 62 | 7 |
| 13 | R+ | 3 Stars in the South+ | 61 | 38 | 1.25 | 24678 | 62 | 7 |
| 14 | R– | Hanging Man– | 15437 | 6911 | –0.85 | 97 | 45 | 7 |
| 15 | R– | Advance Block– | 150 | 67 | –1.54 | 10035 | 45 | 7 |
| 16 | R+ | Doji Star+ | 575 | 352 | 1.82 | 2618 | 61 | 5 |
| 17 | C– | Falling Three Methods– | 1804 | 792 | –0.8 | 834 | 44 | 5 |
| 18 | R– | Evening Doji Star– | 196 | 86 | –0.98 | 7680 | 44 | 5 |
| 19 | C+ | UPside Gap 3 Methods+ | 342 | 208 | 1.25 | 4401 | 61 | 5 |
| 20 | R+ | Homing Pigeon+ | 5047 | 3069 | 1.32 | 298 | 61 | 5 |
| 21 | C+ | In Neck Line+ | 606 | 367 | 1.2 | 2484 | 61 | 4 |
| 22 | C+ | On Neck Line+ | 450 | 271 | 0.93 | 3345 | 60 | 4 |
| 23 | C+ | Upside Tasuki Gap+ | 1729 | 1039 | 1.16 | 870 | 60 | 3 |
| 24 | R+ | Kicking+ | 5 | 3 | 1.33 | 301071 | 60 | 3 |
| 25 | R– | Long Black Body– | 3428 | 1471 | –0.94 | 439 | 43 | 3 |
| 26 | R+ | Three White Soldiers+ | 376 | 224 | 0.8 | 4003 | 60 | 2 |
| 27 | R+ | Three Outside Up+ | 3865 | 2299 | 1.29 | 389 | 59 | 2 |
| 28 | R– | Deliberation– | 426 | 182 | –0.75 | 3533 | 43 | 2 |
| 29 | R+ | Harami+ | 13393 | 7934 | 1.2 | 112 | 59 | 2 |
| 30 | R– | Engulfing Pattern– | 16079 | 6788 | –0.86 | 93 | 42 | 1 |
| 31 | C– | In Neck Line– | 440 | 185 | –0.97 | 3421 | 42 | 0 |
| 32 | C– | Downside Tasuki Gap– | 1880 | 788 | –0.93 | 800 | 42 | 0 |
| 33 | R– | Identical 3 Crows– | 36 | 15 | –0.38 | 41815 | 42 | 0 |
| 34 | R– | Three Outside Down– | 4490 | 1867 | –0.92 | 335 | 42 | –1 |
| 35 | R+ | Belt Hold+ | 1515 | 873 | 1.41 | 993 | 58 | –1 |
| 36 | R– | Doji Star– | 664 | 275 | –1.57 | 2267 | 41 | –1 |

**Table 7-4** (*Continued*)

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–4<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | R– | Tri-Star– | 80 | 33 | –2.93 | 18816 | 41 | –1 |
| 38 | R+ | Engulfing Pattern+ | 13788 | 7862 | 1.05 | 109 | 57 | –2 |
| 39 | R– | Two Crows– | 696 | 284 | –1.16 | 2162 | 41 | –2 |
| 40 | R– | Dark Cloud Cover– | 3325 | 1358 | –1.05 | 452 | 41 | –2 |
| 41 | R– | Harami– | 16652 | 6779 | –1 | 90 | 41 | –3 |
| 42 | R+ | Harami Cross+ | 960 | 537 | 1 | 1568 | 56 | –4 |
| 43 | R– | Belt Hold– | 2134 | 860 | –1.01 | 705 | 40 | –4 |
| 44 | R+ | Long White Body+ | 2663 | 1477 | 0.92 | 565 | 55 | –5 |
| 45 | C+ | Rising Three Methods+ | 2677 | 1481 | 1.01 | 562 | 55 | –5 |
| 46 | R– | Evening Star– | 1553 | 618 | –1.32 | 969 | 40 | –5 |
| 47 | R– | Upside Gap Two Crows– | 345 | 137 | –1.07 | 4363 | 40 | –5 |
| 48 | R– | Meeting Lines– | 53 | 21 | –1.19 | 28403 | 40 | –5 |
| 49 | R+ | Piercing Line+ | 2412 | 1322 | 0.92 | 624 | 55 | –6 |
| 50 | R– | Harami Cross– | 1069 | 419 | –1.29 | 1408 | 39 | –6 |
| 51 | R– | Three Inside Down– | 1318 | 513 | –1.18 | 1142 | 39 | –7 |
| 52 | C– | On Neck Line– | 344 | 134 | –1.24 | 4376 | 39 | –7 |
| 53 | R+ | Three Inside Up+ | 1272 | 683 | 0.88 | 1183 | 54 | –8 |
| 54 | R+ | Hammer+ | 15086 | 8014 | 0.62 | 99 | 53 | –9 |
| 55 | C– | Three Line Strike– | 926 | 354 | –1.35 | 1625 | 38 | –9 |
| 56 | R+ | Tri-Star+ | 98 | 52 | 2.61 | 15360 | 53 | –9 |
| 57 | R– | Breakaway– | 129 | 49 | –1.12 | 11669 | 38 | –9 |
| 58 | R+ | Ladder Bottom+ | 60 | 31 | 0.25 | 25089 | 52 | –11 |
| 59 | R+ | Meeting Lines+ | 4 | 2 | 8.58 | 376339 | 50 | –14 |
| 60 | R+ | Morning Doji Star+ | 273 | 136 | 0.26 | 5514 | 50 | –14 |
| 61 | R+ | Morning Star+ | 1812 | 883 | 0.16 | 830 | 49 | –16 |
| 62 | R– | Three Black Crows– | 497 | 168 | –1.74 | 3028 | 34 | –19 |
| 63 | R– | Kicking– | 3 | 1 | –4.65 | 501786 | 33 | –20 |
| 64 | C– | Side/Side White Lines– | 13 | 4 | –1.23 | 115796 | 31 | –27 |
| 65 | R+ | Unique 3 River Bottom+ | 10 | 4 | –0.13 | 150535 | 40 | –31 |
| 66 | R+ | Abandoned Baby+ | 8 | 3 | –1.56 | 188169 | 38 | –35 |
| 67 | R– | Abandoned Baby– | 5 | 1 | –6.46 | 301071 | 20 | –52 |
| 68 | R+ | Stick Sandwich+ | 4 | 1 | –3.94 | 376339 | 25 | –57 |
| | | Totals: | 148365 | 73388 | | | | |

**Table 7-5**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval—5<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | R– | Matching High– | 76 | 44 | –0.06 | 19807 | 58 | 41 |
| 2 | R+ | Breakaway+ | 96 | 75 | 3.93 | 15680 | 78 | 32 |
| 3 | R– | Ladder Top– | 31 | 16 | –0.72 | 48559 | 52 | 26 |
| 4 | R– | Advance Block– | 149 | 73 | –1.83 | 10103 | 49 | 19 |
| 5 | C– | DNside Gap 3 Methods– | 432 | 207 | –0.48 | 3484 | 48 | 17 |
| 6 | C+ | Side/Side White Lines+ | 54 | 37 | 3.73 | 27877 | 69 | 16 |
| 7 | R– | Shooting Star– | 499 | 237 | –0.68 | 3016 | 47 | 16 |
| 8 | C– | Separating Lines– | 19 | 9 | –1 | 79229 | 47 | 15 |
| 9 | C+ | Separating Lines+ | 46 | 31 | 1.82 | 32725 | 67 | 14 |
| 10 | R+ | Concealing Swallow+ | 27 | 18 | 2.95 | 55754 | 67 | 13 |
| 11 | R+ | Matching Low+ | 51 | 34 | 6.85 | 29516 | 67 | 13 |
| 12 | R– | Hanging Man– | 15419 | 6781 | –1.06 | 97 | 44 | 7 |
| 13 | R– | Tri-Star– | 80 | 35 | –3.18 | 18816 | 44 | 7 |
| 14 | R+ | Inverted Hammer+ | 2890 | 1811 | 1.99 | 520 | 63 | 6 |
| 15 | R– | Evening Doji Star– | 195 | 85 | –1.23 | 7719 | 44 | 6 |
| 16 | C+ | Three Line Strike+ | 874 | 546 | 1.33 | 1722 | 62 | 6 |
| 17 | C+ | In Neck Line+ | 606 | 377 | 1.51 | 2484 | 62 | 5 |
| 18 | R+ | Doji Star+ | 575 | 356 | 2.19 | 2618 | 62 | 5 |
| 19 | C– | Falling Three Methods– | 1792 | 771 | –1.16 | 840 | 43 | 5 |
| 20 | R– | Long Black Body– | 3400 | 1450 | –1.12 | 442 | 43 | 4 |
| 21 | R+ | Homing Pigeon+ | 5043 | 3073 | 1.62 | 298 | 61 | 3 |
| 22 | R+ | Three Outside Up+ | 3864 | 2342 | 1.56 | 389 | 61 | 3 |
| 23 | R+ | Three White Soldiers+ | 376 | 227 | 0.91 | 4003 | 60 | 2 |
| 24 | C– | Downside Tasuki Gap– | 1879 | 789 | –1.25 | 801 | 42 | 2 |
| 25 | C+ | On Neck Line+ | 448 | 270 | 1.23 | 3360 | 60 | 2 |
| 26 | R– | Breakaway– | 129 | 54 | –1.53 | 11669 | 42 | 2 |
| 27 | C– | In Neck Line– | 440 | 184 | –1.24 | 3421 | 42 | 2 |
| 28 | C+ | Upside Tasuki Gap+ | 1725 | 1036 | 1.33 | 872 | 60 | 2 |
| 29 | R– | Identical 3 Crows– | 36 | 15 | –1.21 | 41815 | 42 | 1 |
| 30 | R+ | Harami+ | 13388 | 8016 | 1.45 | 112 | 60 | 1 |
| 31 | R– | Meeting Lines– | 53 | 22 | –1.51 | 28403 | 42 | 1 |
| 32 | R– | Upside Gap Two Crows– | 342 | 142 | –1.18 | 4401 | 42 | 1 |
| 33 | R– | Engulfing Pattern– | 15984 | 6643 | –1.06 | 94 | 42 | 1 |
| 34 | R+ | Belt Hold+ | 1513 | 903 | 1.65 | 994 | 60 | 1 |
| 35 | C+ | UPside Gap 3 Methods+ | 342 | 204 | 1.43 | 4401 | 60 | 1 |
| 36 | R– | Two Crows– | 694 | 287 | –1.35 | 2169 | 41 | 1 |

**Table 7-5** (***Continued***)

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–5<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | R– | Deliberation– | 424 | 175 | –0.89 | 3550 | 41 | 0 |
| 38 | R– | Dark Cloud Cover– | 3315 | 1354 | –1.22 | 454 | 41 | 0 |
| 39 | R– | Doji Star– | 663 | 269 | –1.85 | 2270 | 41 | –1 |
| 40 | R+ | Engulfing Pattern+ | 13785 | 7983 | 1.3 | 109 | 58 | –2 |
| 41 | R– | Harami– | 16634 | 6683 | –1.21 | 90 | 40 | –2 |
| 42 | R– | Three Outside Down– | 4483 | 1798 | –1.17 | 335 | 40 | –2 |
| 43 | R– | Evening Star– | 1553 | 621 | –1.51 | 969 | 40 | –3 |
| 44 | R– | Three Inside Down– | 1314 | 524 | –1.36 | 1145 | 40 | –3 |
| 45 | R+ | Harami Cross+ | 958 | 548 | 1.18 | 1571 | 57 | –3 |
| 46 | R+ | Long White Body+ | 2662 | 1518 | 1.17 | 565 | 57 | –3 |
| 47 | C+ | Rising Three Methods+ | 2677 | 1517 | 1.28 | 562 | 57 | –4 |
| 48 | R– | Belt Hold– | 2126 | 830 | –1.24 | 708 | 39 | –5 |
| 49 | C– | Three Line Strike– | 926 | 355 | –1.65 | 1625 | 38 | –7 |
| 50 | R– | Harami Cross– | 1068 | 410 | –1.67 | 1409 | 38 | –7 |
| 51 | C– | On Neck Line– | 344 | 131 | –1.24 | 4376 | 38 | –7 |
| 52 | R+ | Three Inside Up+ | 1271 | 692 | 1.07 | 1184 | 54 | –8 |
| 53 | R+ | Hammer+ | 15079 | 8165 | 0.86 | 99 | 54 | –8 |
| 54 | R+ | 3 Stars in the South+ | 61 | 33 | 1.14 | 24678 | 54 | –8 |
| 55 | R+ | Tri-Star+ | 98 | 53 | 3.47 | 15360 | 54 | –8 |
| 56 | R+ | Piercing Line+ | 2411 | 1302 | 1.04 | 624 | 54 | –8 |
| 57 | R+ | Ladder Bottom+ | 60 | 31 | 0.94 | 25089 | 52 | –13 |
| 58 | R+ | Morning Star+ | 1812 | 913 | 0.43 | 830 | 50 | –15 |
| 59 | R+ | Meeting Lines+ | 4 | 2 | 8.11 | 376339 | 50 | –15 |
| 60 | R+ | Abandoned Baby+ | 8 | 4 | –0.28 | 188169 | 50 | –15 |
| 61 | R+ | Morning Doji Star+ | 273 | 136 | 0.25 | 5514 | 50 | –16 |
| 62 | R– | Kicking– | 3 | 1 | –4.91 | 501786 | 33 | –19 |
| 63 | R– | Three Black Crows– | 497 | 162 | –2.28 | 3028 | 33 | –21 |
| 64 | R+ | Kicking+ | 5 | 2 | 0.84 | 301071 | 40 | –32 |
| 65 | R+ | Unique 3 River Bottom+ | 10 | 4 | –0.1 | 150535 | 40 | –32 |
| 66 | R– | Abandoned Baby– | 5 | 1 | –7.55 | 301071 | 20 | –51 |
| 67 | R+ | Stick Sandwich+ | 4 | 1 | –3.69 | 376339 | 25 | –58 |
| 68 | C– | Side/Side White Lines– | 13 | 2 | –1.94 | 115796 | 15 | –63 |
| | | Totals: | 148113 | 73420 | | | | |

**Table 7-6**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–6<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | R+ | Breakaway+ | 96 | 77 | 3.78 | 15680 | 80 | 35 |
| 2 | R– | Matching High– | 76 | 41 | –0.65 | 19807 | 54 | 34 |
| 3 | C– | Separating Lines– | 19 | 10 | –1.2 | 79229 | 53 | 31 |
| 4 | C– | DNside Gap 3 Methods– | 432 | 206 | –0.5 | 3484 | 48 | 18 |
| 5 | R– | Advance Block– | 147 | 70 | –1.82 | 10240 | 48 | 18 |
| 6 | C+ | Side/Side White Lines+ | 54 | 38 | 3.9 | 27877 | 70 | 18 |
| 7 | C+ | Separating Lines+ | 46 | 31 | 2.1 | 32725 | 67 | 13 |
| 8 | R– | Meeting Lines– | 53 | 24 | –1.55 | 28403 | 45 | 12 |
| 9 | R– | Ladder Top– | 31 | 14 | –1.4 | 48559 | 45 | 12 |
| 10 | R+ | Matching Low+ | 51 | 33 | 7.58 | 29516 | 65 | 9 |
| 11 | R– | Hanging Man– | 15401 | 6641 | –1.26 | 97 | 43 | 7 |
| 12 | R– | Shooting Star– | 499 | 215 | –0.96 | 3016 | 43 | 7 |
| 13 | R– | Evening Doji Star– | 194 | 83 | –1.7 | 7759 | 43 | 6 |
| 14 | R+ | Concealing Swallow+ | 27 | 17 | 3.42 | 55754 | 63 | 6 |
| 15 | R+ | Three White Soldiers+ | 374 | 235 | 1.05 | 4025 | 63 | 5 |
| 16 | R+ | Doji Star+ | 575 | 361 | 2.57 | 2618 | 63 | 5 |
| 17 | R+ | Homing Pigeon+ | 5040 | 3137 | 1.84 | 298 | 62 | 4 |
| 18 | C+ | UPside Gap 3 Methods+ | 341 | 212 | 1.73 | 4414 | 62 | 4 |
| 19 | C+ | Three Line Strike+ | 873 | 540 | 1.59 | 1724 | 62 | 4 |
| 20 | R+ | Inverted Hammer+ | 2889 | 1783 | 2.29 | 521 | 62 | 4 |
| 21 | R– | Two Crows– | 692 | 288 | –1.49 | 2175 | 42 | 3 |
| 22 | R– | Long Black Body– | 3396 | 1410 | –1.36 | 443 | 42 | 3 |
| 23 | C+ | On Neck Line+ | 446 | 273 | 1.51 | 3375 | 61 | 3 |
| 24 | C– | Falling Three Methods– | 1792 | 739 | –1.53 | 840 | 41 | 2 |
| 25 | R– | Deliberation– | 422 | 174 | –0.91 | 3567 | 41 | 2 |
| 26 | C+ | Upside Tasuki Gap+ | 1720 | 1048 | 1.5 | 875 | 61 | 2 |
| 27 | C– | Downside Tasuki Gap– | 1879 | 772 | –1.4 | 801 | 41 | 2 |
| 28 | R– | Engulfing Pattern– | 15961 | 6536 | –1.24 | 94 | 41 | 1 |
| 29 | R+ | Harami+ | 13383 | 8079 | 1.67 | 112 | 60 | 1 |
| 30 | R+ | Three Outside Up+ | 3856 | 2320 | 1.76 | 390 | 60 | 1 |
| 31 | R– | Harami– | 16598 | 6747 | –1.34 | 90 | 41 | 1 |
| 32 | R+ | Kicking+ | 5 | 3 | 0.09 | 301071 | 60 | 1 |
| 33 | R+ | Belt Hold+ | 1509 | 906 | 1.91 | 997 | 60 | 1 |
| 34 | R– | Dark Cloud Cover– | 3311 | 1342 | –1.4 | 454 | 41 | 0 |
| 35 | R+ | Harami Cross+ | 958 | 571 | 1.46 | 1571 | 60 | 0 |
| 36 | R+ | Engulfing Pattern+ | 13768 | 8141 | 1.54 | 109 | 59 | –1 |

**Table 7-6** **(*Continued*)**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–6 Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | R+ | 3 Stars in the South+ | 61 | 36 | 1.52 | 24678 | 59 | –1 |
| 38 | C+ | In Neck Line+ | 605 | 356 | 1.73 | 2488 | 59 | –1 |
| 39 | R– | Upside Gap Two Crows– | 342 | 135 | –1.55 | 4401 | 39 | –2 |
| 40 | R– | Evening Star– | 1552 | 611 | –1.77 | 969 | 39 | –2 |
| 41 | R+ | Long White Body+ | 2661 | 1538 | 1.36 | 565 | 58 | –3 |
| 42 | C+ | Rising Three Methods+ | 2675 | 1542 | 1.45 | 562 | 58 | –3 |
| 43 | R– | Identical 3 Crows– | 36 | 14 | –1.28 | 41815 | 39 | –4 |
| 44 | R– | Doji Star– | 661 | 257 | –2.23 | 2277 | 39 | –4 |
| 45 | R– | Tri-Star– | 80 | 31 | –3.73 | 18816 | 39 | –4 |
| 46 | C– | Three Line Strike– | 926 | 359 | –1.79 | 1625 | 39 | –4 |
| 47 | R– | Three Inside Down– | 1314 | 508 | –1.63 | 1145 | 39 | –4 |
| 48 | R– | Harami Cross– | 1066 | 412 | –1.9 | 1412 | 39 | –4 |
| 49 | C– | In Neck Line– | 440 | 169 | –1.56 | 3421 | 38 | –5 |
| 50 | R– | Three Outside Down– | 4479 | 1722 | –1.53 | 336 | 38 | –5 |
| 51 | R+ | Three Inside Up+ | 1270 | 721 | 1.31 | 1185 | 57 | –5 |
| 52 | R– | Belt Hold– | 2121 | 813 | –1.48 | 709 | 38 | –5 |
| 53 | R+ | Tri-Star+ | 98 | 55 | 4.04 | 15360 | 56 | –6 |
| 54 | R+ | Piercing Line+ | 2410 | 1347 | 1.3 | 624 | 56 | –6 |
| 55 | R+ | Hammer+ | 15071 | 8333 | 1.04 | 99 | 55 | –7 |
| 56 | R– | Breakaway– | 129 | 48 | –1.78 | 11669 | 37 | –8 |
| 57 | C– | On Neck Line– | 344 | 127 | –1.72 | 4376 | 37 | –8 |
| 58 | R+ | Morning Doji Star+ | 273 | 142 | 0.34 | 5514 | 52 | –13 |
| 59 | R+ | Morning Star+ | 1811 | 930 | 0.54 | 831 | 51 | –14 |
| 60 | R– | Three Black Crows– | 497 | 172 | –2.48 | 3028 | 35 | –14 |
| 61 | R+ | Meeting Lines+ | 4 | 2 | 8.78 | 376339 | 50 | –16 |
| 62 | R+ | Abandoned Baby+ | 8 | 4 | –0.29 | 188169 | 50 | –16 |
| 63 | R+ | Stick Sandwich+ | 4 | 2 | –2 | 376339 | 50 | –16 |
| 64 | R– | Kicking– | 3 | 1 | –6.08 | 501786 | 33 | –17 |
| 65 | R+ | Ladder Bottom+ | 60 | 29 | 0.68 | 25089 | 48 | –19 |
| 66 | R+ | Unique 3 River Bottom+ | 10 | 4 | –0.08 | 150535 | 40 | –33 |
| 67 | R– | Abandoned Baby– | 5 | 1 | –7.02 | 301071 | 20 | –50 |
| 68 | C– | Side/Side White Lines– | 13 | 2 | –2.32 | 115796 | 15 | –62 |
| | | Totals: | 147943 | 73540 | | | | |

**Table 7-7**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval—7 Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | C– | Separating Lines– | 19 | 11 | –1.52 | 79229 | 58 | 46 |
| 2 | R– | Matching High– | 76 | 42 | –1.25 | 19807 | 55 | 39 |
| 3 | R+ | Breakaway+ | 96 | 77 | 3.63 | 15680 | 80 | 33 |
| 4 | R+ | Meeting Lines+ | 4 | 3 | 8.25 | 376339 | 75 | 24 |
| 5 | R+ | Matching Low+ | 51 | 38 | 7.42 | 29516 | 75 | 24 |
| 6 | C– | DNside Gap 3 Methods– | 432 | 206 | –0.64 | 3484 | 48 | 20 |
| 7 | C+ | Side/Side White Lines+ | 54 | 39 | 4.1 | 27877 | 72 | 20 |
| 8 | R– | Meeting Lines– | 53 | 25 | –1.35 | 28403 | 47 | 19 |
| 9 | R+ | Concealing Swallow+ | 27 | 19 | 3.75 | 55754 | 70 | 17 |
| 10 | R– | Tri-Star– | 80 | 37 | –3.8 | 18816 | 46 | 16 |
| 11 | R– | Ladder Top– | 31 | 14 | –1.42 | 48559 | 45 | 14 |
| 12 | C+ | Separating Lines+ | 46 | 31 | 2.2 | 32725 | 67 | 12 |
| 13 | R– | Advance Block– | 147 | 65 | –2.14 | 10240 | 44 | 11 |
| 14 | R– | Shooting Star– | 497 | 216 | –1.21 | 3028 | 43 | 9 |
| 15 | C+ | Three Line Strike+ | 870 | 561 | 1.89 | 1730 | 64 | 7 |
| 16 | R+ | Three White Soldiers+ | 374 | 241 | 1.16 | 4025 | 64 | 7 |
| 17 | R– | Hanging Man– | 15386 | 6493 | –1.46 | 97 | 42 | 6 |
| 18 | C+ | UPside Gap 3 Methods+ | 341 | 218 | 1.93 | 4414 | 64 | 6 |
| 19 | R+ | Homing Pigeon+ | 5038 | 3202 | 2.14 | 298 | 64 | 5 |
| 20 | R– | Identical 3 Crows– | 36 | 15 | –1.33 | 41815 | 42 | 5 |
| 21 | R+ | Inverted Hammer+ | 2883 | 1803 | 2.59 | 522 | 63 | 4 |
| 22 | C+ | Upside Tasuki Gap+ | 1716 | 1071 | 1.81 | 877 | 62 | 3 |
| 23 | R– | Evening Doji Star– | 194 | 79 | –2.05 | 7759 | 41 | 3 |
| 24 | C– | Falling Three Methods– | 1789 | 727 | –1.69 | 841 | 41 | 2 |
| 25 | R+ | Belt Hold+ | 1509 | 931 | 2.14 | 997 | 62 | 2 |
| 26 | R+ | Tri-Star+ | 98 | 60 | 4.75 | 15360 | 61 | 1 |
| 27 | C+ | On Neck Line+ | 445 | 272 | 1.68 | 3382 | 61 | 1 |
| 28 | R– | Two Crows– | 689 | 276 | –1.75 | 2184 | 40 | 1 |
| 29 | R+ | Harami+ | 13375 | 8122 | 1.93 | 112 | 61 | 1 |
| 30 | C– | Downside Tasuki Gap– | 1879 | 751 | –1.73 | 801 | 40 | 1 |
| 31 | R– | Long Black Body– | 3392 | 1349 | –1.69 | 443 | 40 | 0 |
| 32 | R+ | Doji Star+ | 575 | 347 | 2.79 | 2618 | 60 | 0 |
| 33 | C– | Three Line Strike– | 925 | 367 | –1.82 | 1627 | 40 | 0 |
| 34 | R– | Deliberation– | 421 | 167 | –1.04 | 3575 | 40 | 0 |
| 35 | R+ | Three Outside Up+ | 3841 | 2307 | 1.87 | 391 | 60 | 0 |
| 36 | R+ | Kicking+ | 5 | 3 | 2.09 | 301071 | 60 | 0 |

**Table 7-7 (*Continued*)**

## OPTIONABLE STOCKS % RANK

| No. | Type | Interval–7<br>Name | Total | Wins | Avg%Gain | MTBP | %Wins | %Rank |
|---|---|---|---|---|---|---|---|---|
| 37 | R– | Harami– | 16566 | 6538 | –1.54 | 90 | 39 | –1 |
| 38 | R+ | Harami Cross+ | 958 | 570 | 1.68 | 1571 | 59 | –1 |
| 39 | R– | Evening Star– | 1552 | 608 | –2.09 | 969 | 39 | –2 |
| 40 | R– | Dark Cloud Cover– | 3304 | 1292 | –1.73 | 455 | 39 | –2 |
| 41 | R– | Engulfing Pattern– | 15942 | 6218 | –1.55 | 94 | 39 | –2 |
| 42 | R+ | Engulfing Pattern+ | 13746 | 8121 | 1.69 | 109 | 59 | –2 |
| 43 | C– | In Neck Line– | 440 | 170 | –1.82 | 3421 | 39 | –3 |
| 44 | R– | Doji Star– | 657 | 253 | –2.55 | 2291 | 39 | –3 |
| 45 | C+ | In Neck Line+ | 604 | 353 | 1.89 | 2492 | 58 | –3 |
| 46 | C+ | Rising Three Methods+ | 2670 | 1551 | 1.57 | 563 | 58 | –4 |
| 47 | R+ | Long White Body+ | 2654 | 1538 | 1.48 | 567 | 58 | –4 |
| 48 | R– | Upside Gap Two Crows– | 341 | 129 | –1.75 | 4414 | 38 | –5 |
| 49 | R+ | 3 Stars in the South+ | 61 | 35 | 1.66 | 24678 | 57 | –5 |
| 50 | R– | Three Outside Down– | 4476 | 1690 | –1.73 | 336 | 38 | –5 |
| 51 | R+ | Three Inside Up+ | 1265 | 724 | 1.44 | 1190 | 57 | –5 |
| 52 | C– | On Neck Line– | 344 | 128 | –1.78 | 4376 | 37 | –6 |
| 53 | R– | Three Inside Down– | 1314 | 483 | –1.87 | 1145 | 37 | –8 |
| 54 | R– | Harami Cross– | 1063 | 390 | –2.24 | 1416 | 37 | –8 |
| 55 | R+ | Hammer+ | 15067 | 8373 | 1.27 | 99 | 56 | –8 |
| 56 | R+ | Piercing Line+ | 2410 | 1339 | 1.39 | 624 | 56 | –8 |
| 57 | R– | Belt Hold– | 2117 | 771 | –1.79 | 711 | 36 | –8 |
| 58 | R– | Three Black Crows– | 497 | 177 | –2.74 | 3028 | 36 | –10 |
| 59 | R+ | Morning Doji Star+ | 273 | 147 | 0.68 | 5514 | 54 | –11 |
| 60 | R– | Breakaway– | 129 | 45 | –2.01 | 11669 | 35 | –12 |
| 61 | R+ | Ladder Bottom+ | 60 | 31 | 0.97 | 25089 | 52 | –14 |
| 62 | R+ | Morning Star+ | 1811 | 928 | 0.76 | 831 | 51 | –15 |
| 63 | R– | Kicking– | 3 | 1 | –5.99 | 501786 | 33 | –16 |
| 64 | R+ | Stick Sandwich+ | 4 | 2 | –1.62 | 376339 | 50 | –17 |
| 65 | R+ | Unique 3 River Bottom+ | 10 | 4 | –0.11 | 150535 | 40 | –34 |
| 66 | R– | Abandoned Baby– | 5 | 1 | –6.99 | 301071 | 20 | –50 |
| 67 | R+ | Abandoned Baby+ | 8 | 2 | –1.57 | 188169 | 25 | –59 |
| 68 | C– | Side/Side White Lines– | 13 | 2 | –2.74 | 115796 | 15 | –61 |
| | | Totals: | 147758 | 72799 | | | | |

## Longer-Term Pattern Analysis (Nov. 29, 1991–Dec. 31, 2004)

Continuing with the same concept in the previous section, but using a significantly larger amount of data (almost 5.5 million days), one can see that candle patterns tend to work well in most market environments. Figure 7-3 is the S&P 500 Index from November 29, 1991 to December 31, 2004. During this period, the market experienced a giant bull market, followed by a giant bear market.

Table 7-8 shows the results of the same analysis as before, only using much more data and the inclusion of many additional candle patterns. It is also in a more concise format. These rankings are based upon % Wins, the percentage of the time a pattern was successful versus being unsuccessful. The reciprocal of %Wins would be %Losses (100 – %Wins = %Losses). Each pattern was tested over the same prediction intervals and an average of those seven intervals is shown in the last column.

The next two tables were created so you could answer the following questions:

1. How well does each candle pattern perform?
2. What is the best trade exiting method or time frame for each candle pattern?
3. When does each candle pattern perform the best?
4. When does each candle pattern perform the worst?

Trades that do not produce either a profit or a loss (i.e., the costs of entering the trade exactly equal the proceeds from exiting the trade) are not included in the % Wins (Table 7-8). Trades that do not produce either a profit or loss are included in the Net Profit/Loss per Trade (Table 7-9) calculation. The Net Profit/Loss per Trade value is simply the average percent gain (or loss) for all trades. Because the Net Profit/Loss per Trade value is the average result for all trades

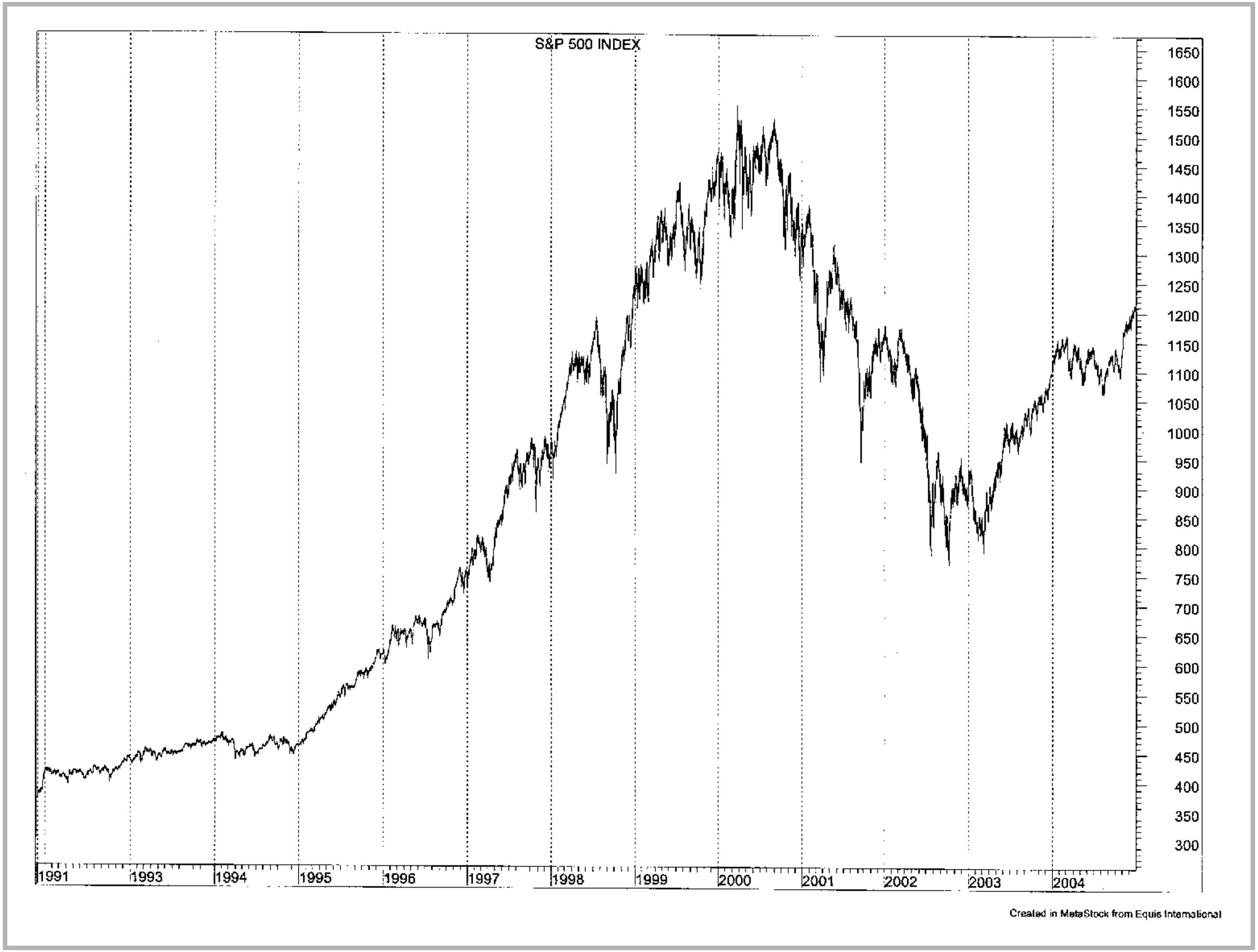



**Figure 7-3 S&P 500—13+ years**

(winning, breakeven, and losing trades), it can be a positive or negative number, or even zero. If the Net Profit/Loss per Trade value is positive, it means the average trade produced a net profit. If the Net Profit/Loss per Trade value is negative, it means the average trade produced a net loss.

Note: The Net Profit/Loss per Trade value is the sum of all individual trade results divided by the number of all trades. If all trades produced either a gain or a loss (i.e., there are no 0.00 trade results), then the Net Profit/Loss per Trade value can also be calculated as follows:

$$\text{Net Profit/Loss per Trade} = (\%\ \text{Winners} \times \text{Avg Win}) + (\%\ \text{Losers} \times \text{Avg Loss})$$

Note: The equation above uses a plus sign because Avg Loss is a negative amount. Also, if you do any of these calculations yourself, watch out for differences caused by rounding of the % Wins and % Losses (reciprocal of % Wins) values. For example, the table will display 71% for % Wins when 5 out of 7 trades are winning trades. A more precise value would be 71.4286%. The program used to create this table uses precise values in all of its calculations. The table displays the end results of its calculations as slightly rounded values for purposes of readability.

A good candlestick pattern will have positive Net Profit/Loss per Trade values across many time frames. And, among those patterns producing a net profit per trade, the better patterns will be those with smaller Avg Loss (100 – % Wins) values (i.e., a –3.00% Avg Loss value is better than a –6.00% Avg Loss value). Candlestick patterns are not perfect, so when a trade doesn't work out, you want a pattern whose losing trades produce on average limited losses.

To use this table you must keep in mind that a success rate of 50% or less is not any better than a coin toss and is of no value. The two highest and two lowest averages are emboldened in the last column.

Notice that in all four cases the number of occurrences of those patterns was relatively small. They consisted of 92 patterns out of 701,402, which is only 0.013% (a little more than 1 in 10,000).

Notice the bullish Descent Block (Desc. Block +) pattern and how it maintained a good percentage of success over all seven prediction intervals. It averaged a 56% success rate, which is excellent. This is how you should use this table.

Finally, the average of the averages for the seven prediction intervals is shown at the bottom of Table 7-8. This offers further proof as to the merit of candle pattern analysis. While two of the intervals only did a well as a coin toss, the fact that most did better is good.

**Table 7-8**

## OPTIONABLE STOCKS % WINS

| | | | |
|---|---|---|---|
| No. of Stocks | 2277 | 7.8272 | Pattern Frequency |
| No. of Days | 5,490,000 | | |
| No. of Patterns | 701,402 | | |

| Pattern | Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Average |
|---|---|---|---|---|---|---|---|---|---|
| 1 Black Crow – | 15850 | 48% | 48% | 48% | 48% | 49% | 49% | 48% | 48% |
| 1 Wht Soldier + | 20812 | 49% | 50% | 51% | 53% | 53% | 53% | 53% | 52% |
| 3 Black Crows – | 3659 | 49% | 48% | 48% | 47% | 46% | 46% | 46% | 47% |
| 3 Dn Gap Up + | 44 | 43% | 43% | 50% | 40% | 36% | 36% | 37% | 41% |
| 3 Gap Downs + | 1101 | 55% | 53% | 55% | 53% | 53% | 53% | 55% | 54% |
| 3 Gap Ups – | 1940 | 54% | 54% | 54% | 54% | 55% | 54% | 52% | 54% |
| 3 Line Strike + | 447 | 48% | 50% | 49% | 54% | 55% | 56% | 56% | 53% |
| 3 Line Strike – | 500 | 49% | 48% | 48% | 49% | 47% | 48% | 49% | 48% |
| 3 Stars North – | 7 | 60% | 57% | 43% | 57% | 67% | 43% | 14% | 49% |
| 3 Stars South + | 9 | 67% | 44% | 67% | 89% | 78% | 75% | 50% | **67%** |
| 3 Up Gap Dn – | 32 | 45% | 38% | 38% | 41% | 38% | 35% | 52% | **41%** |
| 3 Wh Soldiers + | 2479 | 52% | 52% | 51% | 53% | 52% | 52% | 52% | 52% |
| Aban. Baby + | 64 | 59% | 54% | 58% | 62% | 56% | 57% | 48% | 56% |
| Aban. Baby – | 44 | 49% | 55% | 51% | 60% | 55% | 51% | 53% | 53% |
| Advance Block – | 148 | 49% | 47% | 48% | 49% | 46% | 43% | 47% | 47% |
| Battle/Rest + | 7214 | 50% | 53% | 52% | 52% | 52% | 52% | 52% | 52% |

**Table 7-8 (*Continued*)**

## OPTIONABLE STOCKS % WINS

| Pattern | Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Average |
|---|---|---|---|---|---|---|---|---|---|
| Belt Hold + | 1062 | 50% | 50% | 54% | 56% | 55% | 54% | 55% | 53% |
| Belt Hold – | 983 | 51% | 49% | 48% | 48% | 48% | 47% | 46% | 48% |
| Breakaway + | 84 | 58% | 53% | 62% | 58% | 57% | 53% | 52% | 56% |
| Breakaway – | 89 | 52% | 51% | 45% | 56% | 60% | 60% | 58% | 55% |
| Concealing + | 101 | 51% | 55% | 52% | 50% | 50% | 53% | 54% | 52% |
| Deliberation + | 3994 | 54% | 53% | 55% | 56% | 56% | 56% | 56% | 55% |
| Deliberation – | 5903 | 53% | 52% | 52% | 52% | 52% | 52% | 51% | 52% |
| **Desc. Block +** | 250 | 54% | 58% | 54% | 55% | 57% | 55% | 57% | 56% |
| Desc. Hawk – | 6395 | 54% | 54% | 52% | 53% | 51% | 50% | 50% | 52% |
| Dk Cld Cover – | 7354 | 50% | 48% | 47% | 48% | 48% | 48% | 47% | 48% |
| Doji Star + | 12505 | 53% | 53% | 54% | 54% | 54% | 55% | 55% | 54% |
| Doji Star – | 16939 | 53% | 52% | 52% | 51% | 51% | 51% | 50% | 51% |
| Downside TG – | 383 | 52% | 52% | 52% | 51% | 49% | 49% | 50% | 51% |
| 3 Outside Up+ | 16782 | 49% | 50% | 51% | 52% | 51% | 51% | 52% | 51% |
| 3 Outside Dn– | 17345 | 48% | 47% | 47% | 47% | 47% | 46% | 45% | 47% |
| Engulfing + | 87974 | 49% | 49% | 50% | 50% | 51% | 51% | 51% | 50% |
| Engulfing – | 95200 | 49% | 48% | 48% | 48% | 48% | 47% | 47% | 48% |
| Even. D Star – | 1202 | 49% | 51% | 52% | 53% | 53% | 53% | 50% | 52% |
| Evening Star – | 1531 | 48% | 47% | 49% | 49% | 49% | 48% | 48% | 48% |
| Falling 3 M – | 1027 | 53% | 54% | 54% | 48% | 47% | 48% | 48% | 50% |
| Gap 2 Crows – | 11 | 64% | 45% | 45% | 40% | 36% | 45% | 36% | 44% |
| Gap 2 Rabbits + | 7 | 86% | 71% | 86% | 86% | 86% | 86% | 86% | **84%** |
| Gap 3 Meth. + | 342 | 57% | 55% | 53% | 52% | 48% | 52% | 52% | 53% |
| Gap 3 Meth. – | 416 | 49% | 49% | 47% | 48% | 48% | 48% | 48% | 48% |
| Hammer + | 13295 | 45% | 47% | 47% | 47% | 49% | 49% | 50% | 48% |
| Hanging Man – | 21717 | 65% | 62% | 60% | 59% | 57% | 57% | 56% | 59% |
| Har. Cross + | 11712 | 52% | 51% | 52% | 53% | 53% | 53% | 54% | 53% |
| Har. Cross – | 14215 | 52% | 51% | 51% | 50% | 50% | 49% | 49% | 50% |
| Harami + | 101531 | 50% | 51% | 52% | 52% | 53% | 53% | 53% | 52% |
| Harami – | 120366 | 51% | 50% | 50% | 50% | 49% | 49% | 49% | 50% |
| 3 Inside Up+ | 15190 | 50% | 50% | 52% | 51% | 51% | 52% | 52% | 51% |
| 3 Inside Down– | 16893 | 49% | 48% | 48% | 48% | 48% | 47% | 47% | 48% |
| Hom. Pigeon + | 6080 | 51% | 52% | 53% | 54% | 53% | 54% | 55% | 53% |
| In Neck Line + | 22 | 43% | 41% | 36% | 50% | 48% | 59% | 45% | 46% |
| In Neck Line – | 22 | 50% | 40% | 50% | 45% | 45% | **29%** | 36% | 42% |
| Inv. Hammer + | 2754 | 64% | 61% | 59% | 59% | 58% | 58% | 58% | 60% |
| Kicking + | 143 | 51% | 47% | 44% | 46% | 46% | 47% | 49% | 47% |

**Table 7-8 (*Continued*)**

## OPTIONABLE STOCKS % WINS

| attern | Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Average |
|---|---|---|---|---|---|---|---|---|---|
| Kicking – | 92 | 54% | 49% | 43% | 44% | 40% | 47% | 43% | 46% |
| Ladder Bot. + | 383 | 48% | 53% | 60% | 54% | 54% | 56% | 57% | 55% |
| Ladder Top – | 363 | 52% | 51% | 51% | 54% | 54% | 51% | 51% | 52% |
| Mat Hold + | 164 | 46% | 49% | 50% | 53% | 55% | 55% | 53% | 52% |
| Mat Hold – | 96 | 57% | 47% | 45% | 52% | 47% | 48% | 49% | 49% |
| Match. High – | 4668 | 67% | 62% | 61% | 58% | 57% | 55% | 55% | 59% |
| Match. Low + | 4190 | 67% | 61% | 59% | 58% | 57% | 57% | 58% | 60% |
| Meeting Lines + | 1101 | 49% | 51% | 50% | 52% | 52% | 53% | 54% | 52% |
| Meeting Lines – | 1336 | 51% | 50% | 50% | 52% | 52% | 51% | 51% | 51% |
| Morn. D Star + | 1105 | 47% | 46% | 49% | 50% | 53% | 54% | 52% | 50% |
| Morning Star + | 1601 | 49% | 50% | 51% | 50% | 51% | 51% | 53% | 51% |
| On Neck Line + | 388 | 58% | 53% | 56% | 55% | 50% | 54% | 53% | 54% |
| On Neck Line – | 375 | 54% | 49% | 50% | 50% | 48% | 46% | 49% | 49% |
| Piercing Line + | 5751 | 49% | 48% | 50% | 51% | 51% | 52% | 52% | 50% |
| Rising 3 M + | 1650 | 52% | 52% | 51% | 50% | 52% | 51% | 51% | 51% |
| Sep. Lines + | 317 | 52% | 51% | 53% | 55% | 55% | 55% | 56% | 54% |
| Sep. Lines – | 349 | 49% | 48% | 51% | 52% | 50% | 50% | 47% | 50% |
| Shooting Star – | 1595 | 50% | 49% | 51% | 50% | 50% | 49% | 48% | 50% |
| Squeeze Alert + | 6531 | 48% | 50% | 51% | 52% | 53% | 53% | 54% | 52% |
| Squeeze Alert – | 7568 | 51% | 51% | 51% | 50% | 50% | 49% | 48% | 50% |
| Stick Sand. + | 301 | 55% | 53% | 53% | 58% | 57% | 56% | 57% | 56% |
| Stick Sand. – | 321 | 51% | 48% | 46% | 46% | 47% | 49% | 47% | 48% |
| SxS Blk L + | 228 | 43% | 47% | 49% | 48% | 48% | 48% | 48% | 47% |
| SxS Blk L – | 263 | 48% | 49% | 45% | 45% | 43% | 44% | 42% | 45% |
| SxS Wht L + | 369 | 46% | 44% | 48% | 50% | 49% | 49% | 52% | 48% |
| SxS Wht L – | 98 | 48% | 45% | 46% | 47% | 48% | 48% | 49% | 47% |
| Thrusting + | 760 | 54% | 55% | 56% | 53% | 52% | 52% | 54% | 54% |
| Thrusting – | 771 | 51% | 52% | 51% | 50% | 50% | 47% | 48% | 50% |
| Tri Star + | 869 | 44% | 46% | 47% | 49% | 50% | 51% | 51% | 48% |
| Tri Star – | 867 | 47% | 44% | 47% | 48% | 46% | 47% | 47% | 47% |
| Two Crows – | 205 | 55% | 50% | 45% | 47% | 44% | 44% | 47% | 47% |
| Two Rabbits + | 125 | 47% | 45% | 44% | 44% | 52% | 46% | 43% | 46% |
| Uniq. 3 River + | 11 | 64% | 45% | 50% | 45% | 45% | 45% | 55% | 50% |
| Unique 3 Mtn – | 7 | 29% | 57% | 57% | 57% | 43% | 29% | 29% | 43% |
| Upside TG + | 415 | 50% | 50% | 49% | 50% | 49% | 48% | 49% | 49% |
| TOTALS | 701402 | 52% | 50% | 51% | 52% | 51% | 51% | 50% | 51% |

Additional information in regard to the determination of the suitability of candle patterns is to look at the Net Profit divided by the Net Loss per Trade. This would be a measure of the overall profitability of candle patterns based upon the prediction interval. Table 7-9 shows this data with the positive data emboldened.

**Table 7-9**

## OPTIONABLE STOCKS NET PROFIT / LOSS PER TRADE

| | | |
|---|---|---|
| No. of Stocks | 2277 | |
| No. of Days | 5,490,000 | Bold denotes positive values |
| No. of Patterns | 701,402 | 7.8272 Pattern Frequency |

| Pattern | Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 Per. | Average |
|---|---|---|---|---|---|---|---|---|---|
| 1 Black Crow – | 15850 | –0.10 | –0.15 | –0.24 | –0.22 | –0.23 | –0.26 | –0.40 | –0.23 |
| 1 Wht Soldier + | 20812 | **0.17** | **0.24** | **0.42** | **0.58** | **0.70** | **0.76** | **0.78** | **0.52** |
| 3 Black Crows – | 3659 | –0.09 | –0.34 | –0.36 | –0.55 | –0.73 | –0.91 | –1.07 | –0.58 |
| 3 Dn Gap Up + | 44 | –0.09 | –1.40 | –1.19 | –1.96 | –2.60 | –3.30 | –2.62 | –1.88 |
| 3 Gap Downs + | 1101 | **0.45** | **0.62** | **0.61** | **0.73** | **0.91** | **1.00** | **1.16** | **0.78** |
| 3 Gap Ups – | 1940 | **0.13** | **0.19** | **0.18** | **0.17** | **0.22** | **0.24** | –0.05 | **0.15** |
| 3 Line Strike + | 447 | –0.10 | **0.10** | **0.07** | **0.40** | **0.16** | **0.46** | **0.59** | **0.24** |
| 3 Line Strike – | 500 | –0.30 | –0.43 | –0.72 | –0.61 | –0.59 | –0.78 | –0.51 | –0.56 |
| 3 Stars North – | 7 | –0.37 | –0.70 | –1.14 | –1.05 | –1.57 | –2.46 | –2.64 | –1.42 |
| 3 Stars South + | 9 | **0.17** | **0.80** | **1.04** | **1.50** | **1.91** | **1.22** | **1.95** | **1.23** |
| 3 Up Gap Dn – | 32 | –1.90 | –2.46 | –1.99 | –1.30 | –1.86 | –2.13 | –1.23 | –1.84 |
| 3 Wh Soldiers + | 2479 | **0.18** | **0.23** | **0.36** | **0.47** | **0.43** | **0.34** | **0.44** | **0.35** |
| Aban. Baby + | 64 | **0.73** | **0.40** | **0.33** | **0.46** | **0.24** | **0.76** | **0.81** | **0.53** |
| Aban. Baby – | 44 | **0.01** | –0.32 | **0.43** | **0.37** | –0.04 | –1.39 | –1.81 | –0.39 |
| Advance Block – | 148 | –0.35 | –0.39 | –0.87 | –0.70 | –0.83 | –1.23 | –1.36 | –0.82 |
| Battle/Rest + | 7214 | **0.12** | **0.36** | **0.40** | **0.47** | **0.49** | **0.48** | **0.57** | **0.41** |
| Belt Hold + | 1062 | **0.12** | **0.00** | **0.55** | **0.91** | **1.04** | **0.99** | **1.08** | **0.67** |
| Belt Hold – | 983 | **0.14** | –0.18 | –0.18 | –0.11 | –0.09 | –0.45 | –0.63 | –0.21 |
| Breakaway + | 84 | –0.02 | **0.72** | **1.98** | **1.55** | **1.54** | **0.92** | **0.88** | **1.08** |
| Breakaway – | 89 | **0.03** | –0.06 | **0.17** | **0.41** | **0.54** | **0.56** | **0.93** | **0.37** |
| Concealing + | 101 | **0.28** | **0.73** | **1.17** | **1.51** | **1.25** | **2.05** | **2.31** | **1.33** |
| Deliberation + | 3994 | **0.29** | **0.48** | **0.79** | **1.09** | **1.20** | **1.38** | **1.41** | **0.95** |
| Deliberation – | 5903 | **0.06** | **0.08** | **0.08** | **0.08** | **0.14** | **0.07** | **0.00** | **0.07** |
| Desc. Block + | 250 | **0.36** | **0.67** | **0.54** | **0.54** | **0.38** | **0.49** | **0.77** | **0.54** |
| Desc. Hawk – | 6395 | **0.06** | **0.03** | –0.09 | –0.26 | –0.37 | –0.43 | –0.60 | –0.24 |

**Table 7-9 (*Continued*)**
## OPTIONABLE STOCKS NET PROFIT / LOSS PER TRADE

| Pattern | Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 Per. | Average |
|---|---|---|---|---|---|---|---|---|---|
| Dk Cld Cover – | 7354 | –0.09 | –0.28 | –0.37 | –0.47 | –0.53 | –0.60 | –0.78 | –0.45 |
| Doji Star + | 12505 | **0.34** | **0.40** | **0.48** | **0.65** | **0.84** | **0.97** | **1.08** | **0.68** |
| Doji Star – | 16939 | **0.03** | –0.03 | –0.05 | –0.06 | –0.08 | –0.11 | –0.20 | –0.07 |
| Downside TG – | 383 | **0.03** | **0.44** | **0.14** | –0.35 | –0.32 | –0.30 | –0.43 | –0.11 |
| 3 Outside Up + | 16782 | **0.05** | **0.19** | **0.30** | **0.40** | **0.44** | **0.44** | **0.43** | **0.32** |
| 3 Outside Dn – | 17345 | –0.23 | –0.39 | –0.39 | –0.49 | –0.60 | –0.79 | –0.98 | –0.55 |
| Engulfing + | 87974 | **0.07** | **0.07** | **0.21** | **0.32** | **0.39** | **0.48** | **0.49** | **0.29** |
| Engulfing – | 95200 | –0.08 | –0.20 | –0.30 | –0.36 | –0.45 | –0.56 | –0.72 | –0.38 |
| Even. D Star – | 1202 | **0.09** | **0.06** | **0.19** | **0.23** | **0.28** | **0.13** | –0.30 | **0.10** |
| Evening Star – | 1531 | –0.07 | –0.20 | –0.19 | –0.28 | –0.37 | –0.50 | –0.52 | –0.30 |
| Falling 3 M – | 1027 | **0.35** | **0.40** | **0.50** | **0.12** | –0.04 | **0.05** | **0.17** | **0.22** |
| Gap 2 Crows – | 11 | **0.95** | –1.28 | –2.26 | –3.16 | –3.75 | –3.48 | –5.91 | –2.70 |
| Gap 2 Rabbits + | 7 | **2.44** | **1.83** | **2.05** | **2.75** | **4.16** | **6.07** | **3.06** | **3.19** |
| Gap 3 Meth. + | 342 | **0.22** | **0.20** | **0.30** | **0.09** | –0.09 | –0.21 | –0.26 | **0.04** |
| Gap 3 Meth. – | 416 | **0.14** | **0.14** | –0.16 | –0.40 | –0.45 | –0.70 | –0.92 | –0.34 |
| Hammer + | 13295 | –0.25 | –0.25 | –0.14 | –0.16 | –0.02 | **0.08** | **0.22** | –0.07 |
| Hanging Man – | 21717 | **0.98** | **0.84** | **0.66** | **0.57** | **0.43** | **0.36** | **0.20** | **0.58** |
| Har. Cross + | 11712 | **0.20** | **0.25** | **0.40** | **0.58** | **0.74** | **0.84** | **1.04** | **0.58** |
| Har. Cross – | 14215 | –0.06 | –0.14 | –0.20 | –0.27 | –0.30 | –0.38 | –0.48 | –0.26 |
| Harami + | 101531 | **0.16** | **0.22** | **0.37** | **0.54** | **0.63** | **0.69** | **0.80** | **0.49** |
| Harami – | 120366 | –0.01 | –0.13 | –0.21 | –0.25 | –0.27 | –0.31 | –0.41 | –0.23 |
| 3 Inside Up + | 15190 | **0.14** | **0.20** | **0.37** | **0.43** | **0.44** | **0.51** | **0.51** | **0.37** |
| 3 Inside Dn – | 16893 | –0.10 | –0.25 | –0.27 | –0.32 | –0.43 | –0.55 | –0.60 | –0.36 |
| Hom. Pigeon + | 6080 | **0.22** | **0.40** | **0.53** | **0.79** | **1.04** | **1.26** | **1.49** | **0.82** |
| In Neck Line + | 22 | –0.48 | **0.08** | **0.36** | **1.00** | **1.19** | **2.13** | **1.53** | **0.83** |
| In Neck Line – | 22 | –0.22 | –2.07 | –1.59 | –2.72 | –2.82 | –3.72 | –4.16 | –2.47 |
| Inv. Hammer + | 2754 | **1.26** | **1.25** | **1.25** | **1.38** | **1.43** | **1.65** | **1.74** | **1.42** |
| Kicking + | 143 | –0.42 | –0.51 | –0.47 | –0.88 | –0.80 | –0.83 | –0.91 | –0.69 |
| Kicking – | 92 | –0.15 | –0.73 | –1.75 | –1.13 | –1.21 | –0.90 | –1.24 | –1.02 |
| Ladder Bot. + | 383 | –0.10 | **0.10** | **1.10** | **0.98** | **0.87** | **1.19** | **1.22** | **0.77** |
| Ladder Top – | 363 | **0.28** | **0.56** | **0.38** | **0.49** | **0.20** | **0.31** | **0.10** | **0.33** |
| Mat Hold + | 164 | **0.05** | **0.21** | **0.56** | **0.11** | **0.69** | **0.82** | **0.71** | **0.45** |
| Mat Hold – | 96 | **0.39** | –0.22 | –0.46 | **0.05** | –0.48 | –0.06 | –0.62 | –0.20 |
| Match. High – | 4668 | **0.81** | **0.65** | **0.59** | **0.37** | **0.39** | **0.26** | **0.30** | **0.48** |
| Match. Low + | 4190 | **1.28** | **1.24** | **1.34** | **1.46** | **1.53** | **1.78** | **2.03** | **1.52** |
| Meeting Lines + | 1101 | –0.03 | **0.09** | **0.09** | **0.34** | **0.58** | **0.76** | **0.92** | **0.39** |
| Meeting Lines – | 1336 | –0.05 | –0.12 | –0.10 | –0.10 | –0.20 | –0.31 | –0.35 | –0.18 |

**Table 7-9 (*Continued*)**

## OPTIONABLE STOCKS NET PROFIT / LOSS PER TRADE

| Pattern | Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 Per. | Average |
|---|---|---|---|---|---|---|---|---|---|
| Morn. D Star + | 1105 | –0.16 | –0.22 | –0.16 | **0.12** | **0.25** | **0.42** | **0.52** | **0.11** |
| Morning Star + | 1601 | –0.02 | –0.04 | **0.11** | **0.32** | **0.44** | **0.50** | **0.75** | **0.29** |
| On Neck Line + | 388 | **0.16** | **0.38** | **0.44** | **0.42** | **0.21** | **0.48** | **0.54** | **0.38** |
| On Neck Line – | 375 | **0.04** | –0.26 | –0.34 | –0.27 | –0.14 | –0.47 | –0.23 | –0.24 |
| Piercing Line + | 5751 | **0.11** | –0.09 | **0.13** | **0.25** | **0.37** | **0.57** | **0.48** | **0.26** |
| Rising 3 M + | 1650 | **0.44** | **0.71** | **0.66** | **0.57** | **0.64** | **0.76** | **0.71** | **0.64** |
| Sep. Lines + | 317 | **0.42** | **0.66** | **0.99** | **1.16** | **1.61** | **1.62** | **2.07** | **1.22** |
| Sep. Lines – | 349 | –0.49 | –0.59 | –0.32 | **0.01** | –0.06 | –0.60 | –1.02 | –0.44 |
| Shooting Star – | 1595 | –0.19 | –0.30 | –0.13 | –0.13 | –0.10 | –0.38 | –0.46 | –0.24 |
| Squeeze Alert + | 6531 | **0.00** | **0.13** | **0.30** | **0.50** | **0.70** | **0.85** | **1.09** | **0.51** |
| Squeeze Alert – | 7568 | –0.07 | –0.11 | –0.20 | –0.28 | –0.40 | –0.55 | –0.71 | –0.33 |
| Stick Sand. + | 301 | **0.10** | –0.10 | **0.44** | **0.93** | **1.19** | **1.18** | **1.29** | **0.72** |
| Stick Sand. – | 321 | –0.08 | –0.16 | –0.43 | –0.40 | –0.39 | –0.32 | –0.37 | –0.31 |
| SxS Blk L + | 228 | –0.40 | –0.31 | –0.11 | –0.19 | –0.18 | –0.21 | **0.11** | –0.18 |
| SxS Blk L – | 263 | –0.39 | –0.87 | –1.22 | –1.34 | –1.72 | –1.77 | –1.82 | –1.30 |
| SxS Wht L + | 369 | –0.14 | –0.42 | –0.35 | –0.41 | –0.35 | –0.01 | –0.07 | –0.25 |
| SxS Wht L – | 98 | **0.02** | –0.30 | –0.31 | –0.03 | –0.56 | –0.74 | –0.76 | –0.38 |
| Thrusting + | 760 | **0.25** | **0.54** | **0.75** | **0.69** | **0.70** | **0.75** | **1.14** | **0.69** |
| Thrusting – | 771 | –0.05 | **0.04** | **0.01** | **0.02** | –0.09 | –0.32 | –0.28 | –0.10 |
| Tri Star + | 869 | –0.19 | –0.20 | **0.13** | **0.49** | **0.77** | **1.13** | **1.20** | **0.48** |
| Tri Star – | 867 | –0.26 | –0.33 | –0.53 | –0.69 | –0.85 | –0.84 | –0.76 | –0.61 |
| Two Crows – | 205 | –0.10 | –0.29 | –0.24 | –0.10 | –0.24 | –0.27 | –0.06 | –0.19 |
| Two Rabbits + | 125 | –0.54 | –0.83 | –0.76 | –0.79 | –0.50 | –0.49 | –0.67 | –0.65 |
| Uniq. 3 River + | 11 | **0.68** | –0.43 | –2.36 | –2.38 | –2.44 | –3.45 | –3.11 | –1.93 |
| Unique 3 Mtn – | 7 | –2.46 | –2.71 | –1.39 | –2.43 | –4.66 | –7.44 | –9.90 | –4.43 |
| Upside TG + | 415 | 0.19 | 0.34 | 0.15 | 0.02 | -0.02 | -0.11 | 0.23 | 0.11 |

From Table 7-9 one can quickly see the candle patterns that have a row full of positive (bold) returns by taking the net profit per trade and dividing it by the net loss per trade. This is good to know, but you must also look at the data in Table 7-8 in conjunction with this to ensure a single candle pattern did not yield excessive losses. The data in Table 7-8 shows only the percentage of winning trades (% Wins), but the reciprocal of that percentage (100 – %Wins = %Losses) would yield the percentage of losing trades.

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CHAPTER EIGHT

# Candle Pattern Performance

Chapter 7 dealt with the reliability issue of candle patterns and how they performed on a relative basis over seven different prediction intervals. This chapter will focus on the actual performance of the candle patterns relative to other technical indicators. How many times have you asked if candle patterns really work? This is an attempt to give you that answer.

The following tables of data reflect the performance of 14 different technical indicators using the perceived popular parameters for each one. However, each table uses a different setting for analyzing the candle patterns. The success or failure of a candle pattern is determined by the price relative to the last day of the candle pattern. For example, in Table 8-1, the success of a candle pattern is measured by the price one day after the pattern. If the price is lower and it was a bearish reversal pattern or a bearish continuation pattern, then the pattern was deemed successful. Similarly, if the price was higher for the bearish reversal or bearish continuation pattern, then the pattern was a failure. Stated a little differently, if the candle pattern was correct after the period being used, it was considered successful.

| Indicator Abbreviation (Parameter Value) | Indicator |
|---|---|
| Candles (2) | Candle Patterns |
| NSI (0/11/89) | North Systems' Insync Indicator |
| DM (14/TF) | Wilder's Directional Movement |
| EMV (10/9/9) | Arms' Ease of Movement |
| MFI (20/40/60) | Money Flow Index |
| %D (14/20/80) | Lane's Slow Stochastics |
| %K (14/20/80) | Lane's Fast Stochastics |
| PDO (18/10/11) | Price Detrend Oscillator |
| MACD (12/26/9/9) | Appel's Moving Average Convergence Divergence |
| ROC (10/9/9) | Rate of Change |
| RSI (14/35/65) | Wilder's Relative Strength Index |
| CCI (14/–100/100) | Lambert's Commodity Channel Index |
| BRK (50/TF) | Price Breakout |
| %B (20/5/95) | Bollinger's Volatility Indicator |

There are some important points to keep in mind when viewing these tables. All common stocks from all three stock exchanges (NYSE, Nasdaq, and Amex) were used in the analysis, 7275 issues in all, for a little over 13 years each, which resulted in over 14.6 million days of data and generated almost 1.7 million candle patterns.

*Important:* Keep in mind that each individual stock is analyzed for its best performing indicator first, then the average of the totals of each best performing indicator and their respective performance when they were the best one is shown below. Similarly, the average of all Buy and Hold performance is shown when it was the best performer. The above paragraph is very important to understand when viewing and analyzing these tables.

Tables 8-1 through 8-7 show the rankings with the only changes being in how the success or failure of a candle pattern is measured. These tables show the measure beginning with one day in Table 8-1 up to seven days in Table 8-7. Tables 8-8 and 8-9 offer two different measures for candle patterns and will be discussed then.

Table 8-1 shows the results with candle patterns set up to reflect their performance after only one day (**Candles** (**1**)). You can see that the performance of all candle patterns after only one day ranked fifth in the ranking and did not do better than the average of buy and hold.

**Table 8-1**

## BEST PERFORMING INDICATOR—1

| **7275 Stocks** | Nov 29, 1991–Dec 31, 2004 | | | |
|---|---|---|---|---|
| **3300 Days per Stock** | 14.6 Million Days of Data | | | |
| **Best Indicator** | **Number** | **Average Performance** | **Average Buy & Hold** | **Average Difference** |
| NSI (0/11/89) | 82 | 1390.00% | 214.20% | 1176.00% |
| DM (14/TF) | 279 | 894.90% | 605.20% | 289.70% |
| EMV (10/9/9) | 173 | 740.90% | 366.00% | 374.90% |
| MFI (20/40/60) | 154 | 580.60% | 380.90% | 199.70% |
| **Candles (1)** | **603** | **531.00%** | **597.60%** | **–66.62%** |
| %D (14/20/80) | 46 | 518.20% | 482.40% | 35.78% |
| %K (14/20/80) | 65 | 478.00% | 373.00% | 105.00% |
| MACD (12/26/9/9) | 84 | 464.10% | 242.80% | 221.30% |
| ROC (10/9/9) | 48 | 446.10% | 358.40% | 87.73% |
| PDO (18/10/11) | 38 | 443.70% | 519.90% | –76.16% |
| RSI (14/35/65) | 115 | 417.70% | 149.90% | 267.80% |
| CCI (14/–100/100) | 77 | 382.80% | 364.30% | 18.50% |
| BRK (50/TF) | 201 | 325.90% | 724.00% | –99.00% |
| %B (20/5/95) | 73 | 250.60% | 316.10% | -65.52% |

Table 8-2 shows the same ranking methodology but this time the candle pattern performance was measured after two days (**Candles** (**2**)). Here candle patterns performed on average over all the millions of data points, best out of the 14 technical indicators.

**Table 8-2**
## BEST PERFORMING INDICATOR—2

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| **Candles (2)** | **536** | **1723.00%** | **633.40%** | **1089.00%** |
| NSI (0/11/89) | 90 | 1264.00% | 204.20% | 1060.00% |
| DM (14/TF) | 302 | 823.10% | 611.90% | 211.20% |
| EMV (10/9/9) | 170 | 749.60% | 354.20% | 395.40% |
| MFI (20/40/60) | 164 | 544.50% | 369.90% | 174.50% |
| %D (14/20/80) | 46 | 513.80% | 460.00% | 53.83% |
| %K (14/20/80) | 63 | 457.20% | 331.20% | 126.00% |
| PDO (18/10/11) | 38 | 443.70% | 519.90% | –76.16% |
| MACD (12/26/9/9) | 89 | 435.50% | 240.50% | 195.10% |
| ROC (10/9/9) | 49 | 430.80% | 364.50% | 66.25% |
| RSI (14/35/65) | 115 | 414.30% | 146.80% | 267.50% |
| CCI (14/–100/100) | 75 | 388.80% | 336.20% | 52.59% |
| BRK (50/TF) | 224 | 289.60% | 703.70% | –99.00% |
| %B (20/5/95) | 77 | 236.20% | 286.60% | -50.44% |

**Table 8-3**
## BEST PERFORMING INDICATOR—3

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| NSI (0/11/89) | 86 | 1319.00% | 188.90% | 1130.00% |
| DM (14/TF) | 316 | 783.50% | 599.90% | 183.60% |
| EMV (10/9/9) | 175 | 724.30% | 359.70% | 364.60% |
| **Candles (3)** | **528** | **693.70%** | **649.00%** | **44.68%** |
| MFI (20/40/60) | 164 | 543.40% | 347.50% | 195.90% |
| %D (14/20/80) | 45 | 525.60% | 496.00% | 29.67% |

**Table 8-3 (*Continued*)**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| %K (14/20/80) | 56 | 490.60% | 364.30% | 126.30% |
| PDO (18/10/11) | 35 | 475.50% | 410.30% | 65.26% |
| ROC (10/9/9) | 47 | 445.10% | 340.50% | 104.60% |
| MACD (12/26/9/9) | 91 | 424.50% | 255.40% | 169.00% |
| RSI (14/35/65) | 112 | 414.30% | 135.30% | 279.00% |
| CCI (14/–100/100) | 75 | 384.80% | 349.90% | 34.96% |
| BRK (50/TF) | 236 | 268.90% | 673.80% | –99.00% |
| %B (20/5/95) | 72 | 247.60% | 294.80% | -47.15% |

**Table 8-4**

## BEST PERFORMING INDICATOR—4

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| NSI (0/11/89) | 89 | 1279.00% | 196.30% | 1083.00% |
| **Candles (4)** | **512** | **902.40%** | **651.50%** | **251.00%** |
| DM (14/TF) | 321 | 770.70% | 584.00% | 186.70% |
| EMV (10/9/9) | 170 | 733.80% | 353.70% | 380.10% |
| MFI (20/40/60) | 158 | 557.50% | 364.80% | 192.70% |
| %D (14/20/80) | 48 | 489.40% | 473.60% | 15.79% |
| %K (14/20/80) | 57 | 485.10% | 336.10% | 149.00% |
| ROC (10/9/9) | 45 | 456.40% | 333.00% | 123.30% |
| PDO (18/10/11) | 36 | 447.00% | 450.20% | –3.23% |
| RSI (14/35/65) | 111 | 421.40% | 143.00% | 278.40% |
| MACD (12/26/9/9) | 95 | 404.80% | 249.40% | 155.50% |
| CCI (14/–100/100) | 75 | 370.70% | 356.50% | 14.20% |
| BRK (50/TF) | 246 | 258.50% | 686.10% | –99.00% |
| %B (20/5/95) | 75 | 234.80% | 293.20% | -58.43% |

Table 8-5
## BEST PERFORMING INDICATOR—5

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| **Candles (5)** | **507** | **3314.00%** | **622.20%** | **2691.00%** |
| NSI (0/11/89) | 84 | 1326.00% | 193.60% | 1132.00% |
| DM (14/TF) | 321 | 769.30% | 589.10% | 180.20% |
| EMV (10/9/9) | 169 | 730.20% | 338.30% | 391.80% |
| %D (14/20/80) | 43 | 531.40% | 550.50% | –19.05% |
| MFI (20/40/60) | 166 | 527.30% | 381.30% | 146.00% |
| %K (14/20/80) | 57 | 497.30% | 363.20% | 134.00% |
| PDO (18/10/11) | 33 | 475.40% | 403.60% | 71.80% |
| ROC (10/9/9) | 44 | 451.60% | 328.30% | 123.20% |
| MACD (12/26/9/9) | 93 | 413.80% | 261.30% | 152.50% |
| RSI (14/35/65) | 114 | 411.50% | 131.40% | 280.10% |
| CCI (14/–100/100) | 72 | 380.30% | 325.20% | 55.04% |
| %B (20/5/95) | 71 | 244.90% | 307.40% | –62.53% |
| BRK (50/TF) | 264 | 237.90% | 713.70% | -99.00% |

Table 8-6
## BEST PERFORMING INDICATOR—6

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| NSI (0/11/89) | 84 | 1328.00% | 218.60% | 1110.00% |
| EMV (10/9/9) | 179 | 688.20% | 361.30% | 327.00% |
| RSI (14/35/65) | 114 | 410.60% | 138.00% | 272.60% |
| **Candles (6)** | **465** | **839.90%** | **604.10%** | **235.80%** |
| MACD (12/26/9/9) | 92 | 418.70% | 263.40% | 155.20% |
| MFI (20/40/60) | 169 | 517.40% | 386.10% | 131.30% |

**Table 8-6 (*Continued*)**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| DM (14/TF) | 335 | 741.10% | 611.80% | 129.30% |
| ROC (10/9/9) | 43 | 458.60% | 337.30% | 121.30% |
| %K (14/20/80) | 58 | 480.00% | 358.90% | 121.10% |
| CCI (14/–100/100) | 73 | 376.60% | 318.50% | 58.14% |
| PDO (18/10/11) | 37 | 440.40% | 407.20% | 33.27% |
| %D (14/20/80) | 45 | 503.10% | 509.40% | –6.37% |
| %B (20/5/95) | 72 | 239.50% | 274.40% | –34.91% |
| BRK (50/TF) | 272 | 228.90% | 720.60% | -99.00% |

**Table 8-7**

## BEST PERFORMING INDICATOR—7

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| NSI (0/11/89) | 85 | 1316.00% | 220.30% | 1095.00% |
| EMV (10/9/9) | 181 | 684.20% | 370.80% | 313.40% |
| **Candles (7)** | **433** | **835.50%** | **528.40%** | **307.10%** |
| RSI (14/35/65) | 109 | 389.60% | 139.40% | 250.20% |
| MACD (12/26/9/9) | 98 | 395.00% | 252.90% | 142.00% |
| MFI (20/40/60) | 172 | 511.50% | 381.70% | 129.80% |
| %K (14/20/80) | 63 | 448.80% | 342.00% | 106.80% |
| ROC (10/9/9) | 47 | 424.50% | 343.90% | 80.61% |
| DM (14/TF) | 341 | 729.70% | 655.10% | 74.51% |
| CCI (14/–100/100) | 71 | 369.50% | 382.50% | –12.93% |
| PDO (18/10/11) | 38 | 429.90% | 448.20% | –18.32% |
| %D (14/20/80) | 46 | 495.30% | 524.00% | –28.69% |
| %B (20/5/95) | 76 | 232.90% | 288.20% | –55.31% |
| BRK (50/TF) | 278 | 224.30% | 772.90% | –99.00% |

Table 8-8 shows the same ranking process but this time the candle pattern success or failure is measured by always requiring a reversal candle pattern before a position is closed out. Instead of just measuring the price change after a certain number of days, the price change is measured until a new and opposing candle pattern appears. Keep in mind that on this analysis there was an average of one candle pattern every 8.7 days.

**Table 8-8**
## BEST PERFORMING INDICATOR—OPP

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| NSI (0/11/89) | 88 | 1266.00% | 210.00% | 1056.00% |
| DM (14/TF) | 383 | 646.60% | 652.40% | –5.71% |
| EMV (10/9/9) | 206 | 599.00% | 429.90% | 169.10% |
| **Candles (opp.)** | **269** | **479.50%** | **441.30%** | **38.20%** |
| MFI (20/40/60) | 191 | 463.10% | 371.60% | 91.51% |
| %K (14/20/80) | 61 | 456.50% | 442.80% | 13.74% |
| PDO (18/10/11) | 36 | 438.50% | 434.90% | 3.66% |
| ROC (10/9/9) | 46 | 424.00% | 348.90% | 75.06% |
| %D (14/20/80) | 53 | 409.40% | 462.90% | –53.54% |
| MACD (12/26/9/9) | 99 | 384.90% | 284.20% | 100.70% |
| RSI (14/35/65) | 122 | 361.70% | 139.50% | 222.20% |
| CCI (14/–100/100) | 86 | 327.80% | 429.70% | –99.00% |
| %B (20/5/95) | 77 | 231.30% | 281.10% | –49.89% |
| BRK (50/TF) | 321 | 187.70% | 787.60% | –99.00% |

Table 8-9 shows the same ranking methodology except this time the candle pattern success or failure is measured by waiting at least two days and then closing out the trade only when the position fails to continue to improve. A position fails to improve when, on the third or later period after the trade is entered, the closing price for that period is (1) not greater than the closing price for the previous period for bullish candle signals, or (2) not less than the closing price for the previous period for bearish candle signals.

**Table 8-9**

## BEST PERFORMING INDICATOR– +2

**7275 Stocks**
**3300 Days per Stock**

| Best Indicator | Number | Average Performance | Average Buy & Hold | Average Difference |
|---|---|---|---|---|
| NSI (0/11/89) | 84 | 1328.00% | 218.60% | 1110.00% |
| NSI (0/11/89) | 95 | 1192.00% | 170.10% | 1022.00% |
| DM (14/TF) | 337 | 729.80% | 598.30% | 131.50% |
| EMV (10/9/9) | 198 | 632.50% | 372.00% | 260.50% |
| %D (14/20/80) | 47 | 492.40% | 478.50% | 13.93% |
| MFI (20/40/60) | 188 | 470.80% | 365.80% | 105.00% |
| %K (14/20/80) | 61 | 457.90% | 349.10% | 108.90% |
| ROC (10/9/9) | 45 | 451.10% | 340.70% | 110.40% |
| PDO (18/10/11) | 33 | 418.40% | 314.30% | 104.10% |
| **Candles (2+)** | **388** | **401.40%** | **718.40%** | **–99.00%** |
| MACD (12/26/9/9) | 97 | 396.40% | 265.90% | 130.50% |
| RSI (14/35/65) | 128 | 371.30% | 132.10% | 239.10% |
| CCI (14/–100/100) | 77 | 358.70% | 340.90% | 17.80% |
| BRK (50/TF) | 261 | 234.80% | 712.80% | –99.00% |
| %B (20/5/95) | 83 | 219.60% | 277.10% | –57.51% |

## CONCLUSIONS ON CANDLE PATTERN PERFORMANCE

First, the Candle Pattern Performance Summary.

| Pattern Parameter | Rank | Percent Rank |
|---|---|---|
| 1 day | 5 | 64.3% |
| 2 day | 1 | 100% |
| 3 day | 4 | 71.4% |
| 4 day | 2 | 85.7% |
| 5 day | 1 | 100% |
| 6 day | 4 | 71.4% |
| 7 day | 3 | 78.6% |
| Opposite pattern | 4 | 71.4% |
| +2 days, then fail | 9 | 35.7% |

It should be obvious that candle patterns, as a whole, work better than most price-based technical indicators. There was only one instance where they ranked less than the fifth best indicator out of the 14 indicators tested. That is a ranking of greater than 64%, over 92% of the time.

CHAPTER NINE

# Candle Pattern Filtering

Candle pattern filtering offers a method of trading with candlesticks that is complemented by other popular technical tools for analysis. Filtering is a concept that has been used in may other forms of technical analysis and is now a proven method with candle patterns.

If there is any fault with using a single method for market timing and analysis, it most certainly will also be a fault with candle patterns. Just like any price-based technical indicator based upon a single concept, candle patterns will not work all of the time. When indicators are combined or used in conjunction with one another, the results can only improve. Again, candle patterns are no different: when used with another indication, the results are superb.

*2005 Note:* Other than some minor editing, this chapter continues to provide the details necessary to understand and use the candle pattern filtering concept. At the end of the chapter are updated tables that utilize a larger universe of stock data.

Here is a list of the technical indicators referenced in this chapter with a brief explanation. The number in parentheses is the value of the indicator's parameter that was used.

| Abbreviation (Parameter Value) | Indicator |
|---|---|
| NSINC | North Systems' InSync Indicator |
| RSI (14) | Wilder's Relative Strength Index |
| %B (20) | Bollinger's Volatility Indicator |
| MFI (20) | Money Flow Index |
| %D (14) | Lane's Slow Stochastics |
| CCI (14) | Lambert's Commodity Channel Index |
| EMV (10) | Arms' Ease of Movement |
| %K (14) | Lane's Fast Stochastics |
| ROC (10) | Rate of Change |
| MACD (12) | Appel's Moving Average Convergence Divergence |
| PDO (18) | Price Detrend Oscillator |

## THE FILTERING CONCEPT

The filtering concept was developed to assist the analyst in removing premature candle patterns, or for that matter, eliminate most of the early candle patterns. Because candle patterns are intensely dependent upon the underlying trend of the market, lengthy trends in price will usually cause early pattern signals, not unlike most technical indicators. Something else had to be used to assist in the qualifications of the candle pattern signals. Most technical analysts use more that one indicator to confirm their signals, so why not do the same with candle patterns? The answer is the use of technical indicators. While appearing obvious, technical indicators did not provide the "how" answer to the problem, only the "what."

The following discussions will try to explain the answer to the "how" question. Most indicators have a buy and sell definition to help in their interpretation and use. There is a point prior to a buy or sell signal that is normally a better place for a signal to fire, but is difficult to define. Most, if not all, indicators lag the market somewhat. This is because the components of indicator construction are the underlying data itself. If an indicator's parameters are set too tight, the result will be too many bad signals, or whipsaws. Therefore, a presignal area was determined based upon thresholds and/or indicator values, whether positive or negative.

Once an indicator reaches its defined presignal area, it has been primed to await its firing signal. The amount of time an indicator will be in the presignal area cannot be determined. The only certainty is that once an indicator reaches its presignal area, it will eventually produce a trading signal (buy or sell). Statistically, it has been found that the longer an indicator is in its presignal area, the better the actual buy or sell signal will be.

The presignal area is the filtering area for each individual indicator, its fingerprint. Each indicator has a different fingerprint. If the indica-

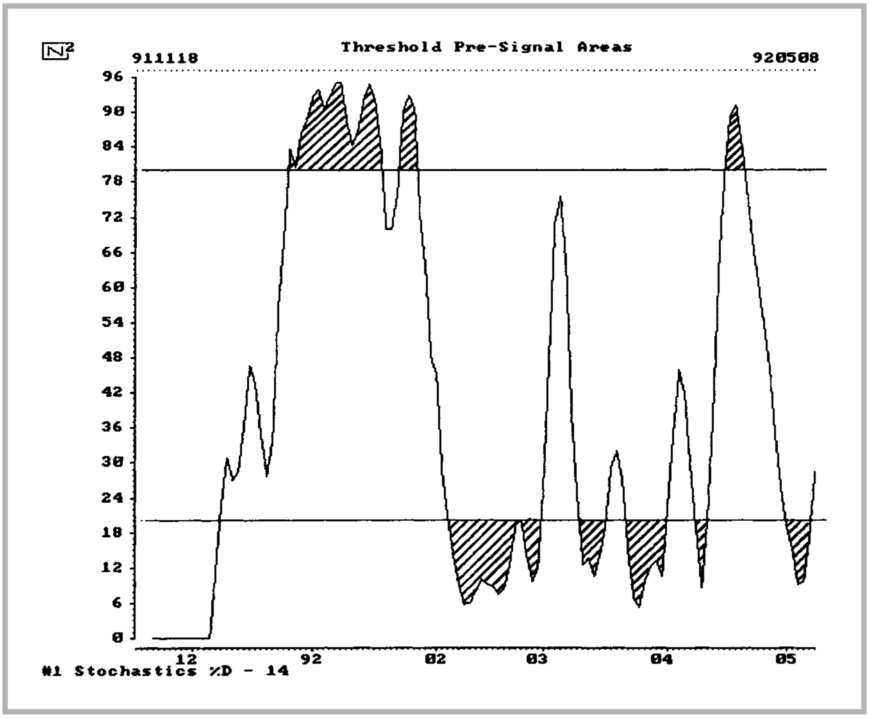



**Figure 9-1**

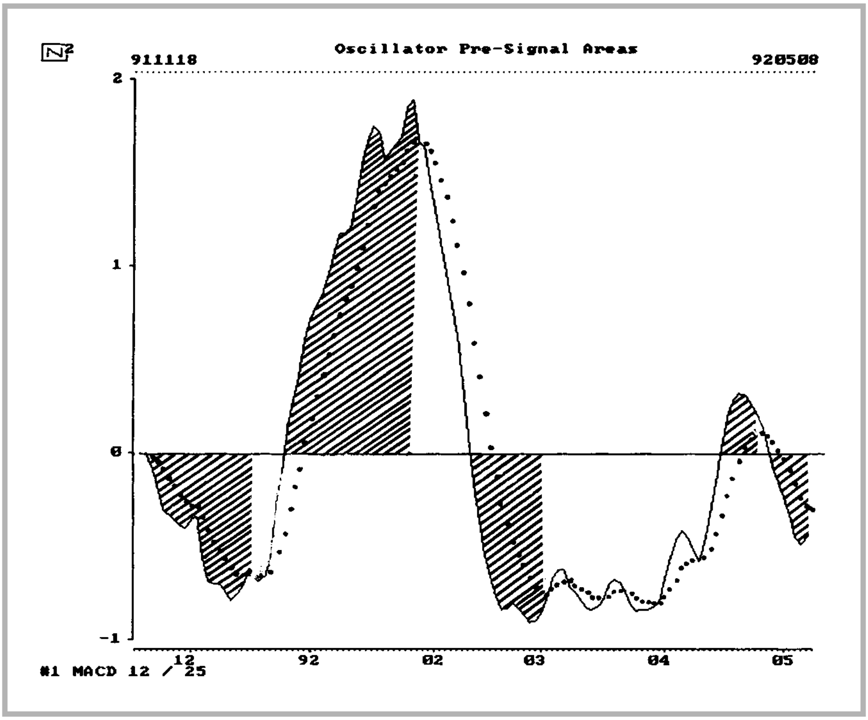
tor is in the buying presignal area, only bullish presignal area, only bullish candle patterns will be filtered. Likewise, if an indicator is in the selling presignal area, only bearish candle patterns are filtered.

## Presignal Areas

For threshold-based indicators, the presignal area is the area between the indicator and the thresholds, both above and below (Figure 9-1).

For oscillators, the presignal area is defined as the area after the indicator crosses the zero line until it crosses the moving average or smoothing used to define the trading signals (Figure 9-2).

**Figure 9-2**



## INDICATORS

The indicators used to filter candle patterns should be easily available and simple to define. They must perform in a manner that enables one to determine areas of buying and area of selling. These are often referred to as overbought and oversold areas. Indicators such as Welles Wilder's RSI (Relative Strength Index) and George Lane's %K and %D (Stochastics) are exceptionally good for candlestick filtering because they both remain between 0 and 100. At the end of the chapter, many other indicators will be shown to demonstrate the filtering concept. Because RSI and Stochastics are so widely known and used, more detail will be provided on their construction and use in filtering.

### WILDER'S RSI

J. Welles Wilder developed the Relative Strength Index (RSI) in the late 1970s. It has been a popular indicator, with many different interpretations. It is a simple measurement that expresses the relative strength of the current price movement as increasing from 0 to 100. Basically, it averages the up days and down days. Up and down days are determined by the day's close relative to the previous day's close. Do not confuse Wilder's Relative Strength Index (RSI) with a relative strength measure that compares two securities.

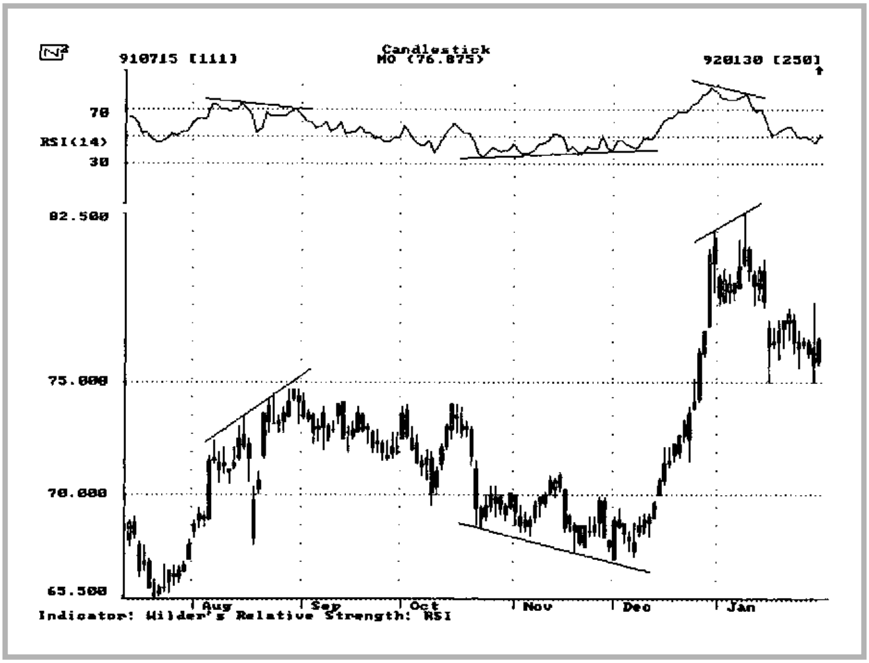
Wilder favored the use of the 14-period measurement because if represents one-half of a natural cycle in the market. He also set the significant levels of the indicator at 30 to 70. The lower level indicates an imminent upturn and the upper level a downturn.

A plot of RSI can be interpreted using many of the classic bar chart formations, such as head and shoulders. Divergence with price within the period used to calculate the RSI works well, if the divergence takes place near the upper or lower regions of the indicator.

Many stock-charting services show RSI calculations based on 14 periods. Some commodity chart services prefer to use 9 periods. If you can determine the dominant cycle of the data, that value would be a good period to use for RSI. The levels (thresholds) for determining market turning points can also be moved. Using levels of 35 and 65 seem to work better for stocks, whereas the original levels of 30 and 70 are better for futures.

In the chart of Philip Morris (MO), presented in Figure 9-3, the divergence of the 14-day RSI with the general price trends is quite

**Figure 9-3**



obvious. Whenever the RSI gets into or near the threshold, a change in the trend of prices is soon to follow.

## LANE'S STOCHASTIC OSCILLATOR: %D

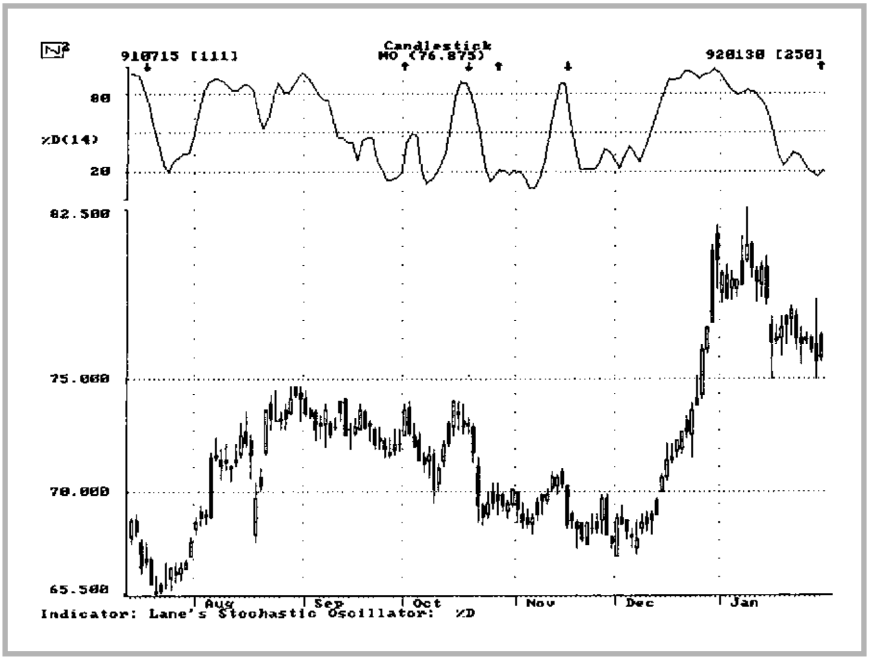
George Lane developed Stochastics many years ago. A stochastic, in this sense, is an oscillator that measures the relative position of the closing price within the daily range. In simple terms, where is the close relative to the range of prices over the last *x* periods? Just like RSI, 14 periods seems to be a popular choice.

Stochastics is based on the commonly accepted observation that closing prices tend to cluster near the day's high prices as an upward move gains strength and near the day's lows during a decline. For instance, when a market is about to turn from up to down, highs are often higher, but the closing price settles near the low. This makes the stochastic oscillator different from the most oscillators, which are normalized representations of the relative strength, the difference between the close and a selected trend.

The calculation of %D is simply the three period simple moving average of %K. It is customarily displayed directly over %K, making both of them almost impossible to see. Interpreting Stochastics requires familiarity with the way it reacts in particular markets. The usual initial trading signal occurs when %D crosses the extreme bands (75 to 85 on the upside and 15 to 25 on the downside). The actual trading signal is not made until %K crosses %D. Even though the extreme zones help assure an adverse reaction of minimum size, the crossing of the two lines acts in a way similar to dual moving averages.

In Figure 9-4, the same chart of Philip Morris (MO) used in the RSI example, we can see how good Lane's %D is at oscillating with the prices to areas of overbought and oversold.

Figure 9-4




## FILTERING PARAMETERS

Many powerful trading and back-testing software packages are available today. Some optimize indicators by curve-fitting the data, while others utilize money-management techniques. A few have advanced methods that concentrate on all possibilities. It is not going to be the purpose here to amplify the faults or hail the innovations of this type of analysis. The method used will be simple and straightforward in concept.

Three trading methods will be utilized in these tests: candle patterns, indicators, and filtered candlesticks. Each will use the same methodology of buying, selling short, and then covering so that a system is in the market at all times. While this is not always a good way to trade, it is used here to show how filtered candlesticks will usually outperform the other two systems. Also, the trading results are shown as if there were a closing trade on the last day of the data to give you a feel for the complete trading history.

Additionally, a signal is generated whenever the appropriate reference indicator reaches the prescribed parameters. That is, the indicator must have gone above (or below) the threshold and then cross it again in the opposite direction. For example, when %D goes above 80, it has entered the presignal area and the sell filter is turned on for the candle patterns. The thresholds of 20 and 80 were used here only for purposes of explanation.

All of the indicators require a setting for the number of days (periods) to use in their calculation. As mentioned earlier, this value should reflect the basic cycle of the market being analyzed. Two additional values need to be set: the upper and lower threshold just mentioned. These are the settings that determine the values that the indicator must reach or exceed before it will filter a candle pattern.

Initially, commonly accepted values will be used: a 14-day %D, first with thresholds of 20 and 80 and then with thresholds of 65 and 35 on different data. The data used will be the stocks of the S&P 100 index and the 30 stocks of the Dow Industrial Average. The S&P 100 database started at the beginning of 1989 and ended on March 31, 1992. The Dow Industrials database began on April 24, 1990, and ended on March 31, 1992.

## FILTERING EXAMPLES

From Table 9-1 you can see that trading each stock using candle patterns for the advice resulted in 67 stocks with positive percentage gains and 33 losers. These numbers came simply from counting the positive and negative results in the first column. Trading strictly on the candle pattern signals resulted in an average of 37.1 trades, with an average gain per trade of 0.40%.

Trading the same 100 stocks using only %D for the trading signals resulted in only 53 stocks that were winners and 47 losers. The number of average trades was reduced to 30.01, with an average gain of 0.02% per trade.

Using the filtering concept for the trading signals resulted in 62 winners and 39 losers. This was not as good as using the candle patterns by themselves, but was much better than using signals generated strictly from the stochastic indicator %D. The average number of trades was 13.7, which is better than candle patterns or %D by over 50%. The average gain per trade was 0.60% which, again, is significantly better than the average gain from the other two trading methods.

What does all of this really tell you? First, by filtering the candle patterns with an indicator, such as %D, the number of trades is significantly reduced. Compared to candle patterns alone, the reduction was over 63%, and compared to trades using the indicator %D alone, the reduction was over 54%. Second, filtering increased the average gain per trade. The increase over candle patterns alone was 50% and the increase over the %D was over 30 times as great.

You should not ignore or forget what is known about using statistics to make a point; they can be manipulated to show whatever results the author is trying to make. We all know that an average gain of 0.6% would quickly disappear when we included commissions, slippage, and the like. The simplicity of these calculations, though, shows one very important point: It is the relationship of the numbers with each other that is important, not the actual numbers. This relationship, taken as an average of the values derived from 100 different stocks, is the proof needed to support the filtering concept.

Table 9-1 shows the results of the filtering concept by averaging the data on the 100 stocks of the S&P 100 Index. To keep the number of tables and the amount of information to a reasonable number, the next example will use the 30 stocks that make up the Dow Industrials.

Trading results for the 30 blue chip stocks that make up the Dow

**Table 9-1**
## FILTERING STATISTICS

| 100 Tickers | 1340 | Periods | Indicator: | %D(14) | Buy Line: 20 | Sell LIne: 80 |
|---|---|---|---|---|---|---|

| Ticker | %Gain/CS | %AvGn–CS | %Gain/Ind | %AvGn–Ind | %Gain/Fil | %AvGn–Fil |
|---|---|---|---|---|---|---|
| AA | 47.690/40 = | 1.1923 | 82.100/38 = | 2.1605 | 89.040/19 = | 4.6863 |
| AEP | 19.840/34 = | 0.5835 | –35.800/34 = | –1.0529 | 8.9700/14 = | 0.6407 |
| AGC | –9.690/40 = | –0.2423 | 9.7800/30 = | 0.3260 | 8.0500/17 = | 0.4735 |
| AIG | 6.8700/41 = | 0.1676 | 12.320/30 = | 0.4107 | –59.940/14 = | –4.2814 |
| AIT | 9.3800/33 = | 0.2842 | 42.320/27 = | 1.5674 | 21.980/10 = | 2.1980 |
| AMP | –34.440/48 = | –0.7175 | 27.650/33 = | 0.8379 | 19.660/15 = | 1.3107 |
| AN | 47.330/38 = | 1.2455 | –32.510/35 = | –0.9289 | 10.760/7 = | 1.5371 |
| ARC | 48.740/42 = | 1.1605 | 57.680/36 = | 1.6022 | 4.0900/12 = | 0.3408 |
| AVP | –105.26/35 = | –3.0074 | 92.000/34 = | 2.7059 | –17.930/12 = | –1.4942 |
| AXP | 81.570/43 = | 1.8970 | 38.510/29 = | 1.3279 | 113.36/16 = | 7.0850 |
| BA | –16.960/29 = | –0.5848 | 26.750/31 = | 0.8629 | 108.53/20 = | 5.4265 |
| BAC | –21.860/33 = | –0.6624 | –82.550/21 = | –3.9310 | –44.550/11 = | –4.0500 |
| BAX | 44.410/43 = | 1.0328 | –23.130/27 = | –0.8567 | 52.120/15 = | 3.4747 |
| BC | 24.620/39 = | 0.6313 | –14.760/30 = | –0.4920 | 190.74/18 = | 10.597 |
| BCC | 83.770/46 = | 1.8211 | 40.060/26 = | 1.5408 | 25.070/14 = | 1.7907 |
| BDK | –77.760/44 = | –1.7673 | 131.07/36 = | 3.6408 | –31.490/16 = | –1.9681 |
| BEL | 52.780/48 = | 1.0996 | –22.200/28 = | –0.7929 | 29.140/16 = | 1.8213 |
| BHI | 114.57/38 = | 3.0150 | 9.1300/36 = | 0.2536 | 30.540/14 = | 2.1814 |
| BMY | 41.450/36 = | 1.1514 | 54.950/33 = | 1.6652 | –31.740/5 = | –6.3480 |
| BNI | 9.0000/36 = | 0.2500 | –44.460/27 = | –1.6467 | –49.100/9 = | –5.4556 |
| BS | 58.150/45 = | 1.2922 | –58.090/32 = | –1.8153 | –8.7100/12 = | –0.7258 |
| CCB | 18.560/35 = | 0.5303 | 3.8700/29 = | 0.1334 | –35.480/14 = | –2.5343 |
| CCI | 39.360/40 = | 0.9840 | –40.970/38 = | –1.0782 | 42.240/21 = | 2.0114 |
| CDA | 38.770/37 = | 1.0478 | 233.73/33 = | 7.0827 | 67.140/14 = | 4.7957 |
| CGP | 53.650/48 = | 1.1177 | 55.500/36 = | 1.5417 | 43.730/19 = | 2.3016 |
| CHA | 54.160/41 = | 1.3210 | 65.230/28 = | 2.3296 | 70.600/19 = | 3.7158 |
| CI | 16.320/44 = | 0.3709 | 13.080/28 = | 0.4671 | –4.3100/16 = | –0.2694 |
| CL | 20.010/51 = | 0.3924 | –49.560/25 = | –1.9824 | –8.2400/19 = | –0.4337 |
| CSC | –42.050/43 = | –0.9779 | 12.360/33 = | 0.3745 | 38.810/19 = | 2.0426 |
| CWE | –10.930/33 = | –0.3312 | –68.300/23 = | –2.9696 | 11.540/12 = | 0.9617 |
| DAL | –15.960/42 = | –0.3800 | 86.830/36 = | 2.4119 | –2.3100/14 = | –0.1650 |
| DD | –25.940/45 = | –0.5764 | –46.350/29 = | –1.5983 | 14.070/12 = | 1.1725 |
| DEC | 30.880/37 = | 0.8346 | 41.410/29 = | 1.4279 | 75.850/14 = | 5.4179 |
| DIS | –36.790/28 = | –1.3139 | –55.110/21 = | –2.6243 | –45.950/13 = | –3.5346 |
| DOW | –146.10/29 = | –5.0379 | –15.670/32 = | –0.4897 | –16.120/9 = | –1.7911 |

**Table 9-1 (*Continued*)**

**100 Tickers 1340 Periods Indicator: %D(14) Buy Line: 20 Sell LIne: 80**

| Ticker | %Gain/CS | %AvGn–CS | %Gain/Ind | %AvGn–Ind | %Gain/Fil | %AvGn–Fil |
|---|---|---|---|---|---|---|
| EK | –3.4000/30 = | –0.1133 | 26.600/31 = | 0.8581 | 32.730/10 = | 3.2730 |
| ETR | –12.940/32 = | –0.4044 | –25.660/25 = | –1.0264 | –62.480/6 = | –10.413 |
| F | –58.800/32 = | –1.8375 | 16.150/28 = | 0.5768 | –85.530/9 = | –9.503 |
| FDX | 29.690/40 = | 0.7423 | 64.750/32 = | 2.0234 | –4.0700/15 = | –0.2713 |
| FLR | 44.220/36 = | 1.2283 | 45.310/35 = | 1.2946 | 132.12/18 = | 7.3400 |
| FNB | 91.740/41 = | 2.2376 | 23.440/27 = | 0.8681 | 84.600/21 = | 4.0286 |
| GD | 67.350/39 = | 1.7269 | –23.430/25 = | –0.9372 | –32.300/14 = | –2.3071 |
| GE | 8.8000/23 = | 0.3826 | –14.610/29 = | –0.5038 | –43/7 = | –6.1429 |
| GM | –25.110/27 = | –0.9300 | 21.580/31 = | 0.6961 | 24.930/11 = | 2.2664 |
| GWF | 83.550/44 = | 1.8989 | –80.230/30 = | –2.6743 | –107.71/12 = | –8.9758 |
| HAL | 39.060/38 = | 1.0279 | 88.670/32 = | 2.7709 | 16.060/14 = | 1.1471 |
| HM | –9.810/38 = | –0.2582 | –35.270/32 = | –1.1022 | 97.200/17 = | 5.7176 |
| HNZ | –27.660/42 = | –0.6586 | –29.680/23 = | –1.2904 | 11.810/16 = | 0.7381 |
| HON | –21.150/31 = | –0.6823 | –3.5600/28 = | –0.1271 | –10.480/10 = | –1.0480 |
| HRS | 41.300/41 = | 1.0073 | 61.480/31 = | 1.9832 | 9.1300/14 = | 0.6521 |
| HUM | 62.090/39 = | 1.5921 | 48.970/31 = | 1.5797 | 161.86/20 = | 8.0930 |
| HWP | –18/22 = | –0.8182 | –106.32/26 = | –4.0892 | 9.2400/10 = | 0.9240 |
| I | –74.760/38 = | –1.9674 | –35.580/28 = | –1.2707 | –45.430/20 = | –2.2715 |
| IBM | 11.380/31 = | 0.3671 | 12.030/31 = | 0.3881 | 14.910/11 = | 1.3555 |
| IFF | –25.540/43 = | –0.5940 | 32.710/33 = | 0.9912 | 4/15 = | 0.2667 |
| IMA | 19.640/33 = | 0.5952 | –23.540/28 = | –0.8407 | –14.590/13 = | –1.1223 |
| IP | 46.850/31 = | 1.5113 | 34.280/26 = | 1.3185 | 35.360/13 = | 2.7200 |
| ITT | 74.590/33 = | 2.2603 | 25.560/36 = | 0.7100 | 49.630/15 = | 3.3087 |
| JNJ | 16.830/35 = | 0.4809 | –37.890/28 = | –1.3532 | –13.870/13 = | –1.0669 |
| KM | 69.950/41 = | 1.7061 | 31.310/31 = | 1.0100 | –16.390/16 = | –1.0244 |
| KO | –34.090/34 = | –1.0026 | –61.820/24 = | –2.5758 | –102.14/11 = | –9.285 |
| LIT | 64.830/39 = | 1.6623 | 40.910/42 = | 0.9740 | 56.080/18 = | 3.1156 |
| LTD | 131.97/40 = | 3.2993 | –93.690/25 = | –3.7476 | –6.4000/16 = | –0.4000 |
| MCD | 35.690/40 = | 0.8922 | –33.790/30 = | –1.1263 | –7.3300/17 = | –0.4312 |
| MCIC | 147.67/37 = | 3.9911 | –10.350/32 = | –0.3234 | 142.83/17 = | 8.4018 |
| MER | 65.940/36 = | 1.8317 | 26.110/28 = | 0.9325 | 37.920/20 = | 1.8960 |
| MMM | 46.860/35 = | 1.3389 | 15.470/31 = | 0.4990 | 51.840/13 = | 3.9877 |
| MOB | 43.720/47 = | 0.9302 | 60.820/35 = | 1.7377 | 25.260/17 = | 1.4859 |
| MRK | –42.780/31 = | –1.3800 | –44.460/22 = | –2.0209 | –26.960/7 = | –3.8514 |
| MTC | –25.090/27 = | –0.9293 | –24.230/25 = | –0.9692 | –49.560/9 = | –5.5067 |
| NSC | 35.660/31 = | 1.1503 | 16.720/30 = | 0.5573 | 58.970/17 = | 3.4688 |
| NSM | –166.31/29 = | –5.7348 | –54.080/22 = | –2.4582 | –69.310/6 = | –11.552 |
| NT | –37.080/37 = | –1.0022 | 52.680/35 = | 1.5051 | 42.920/13 = | 3.3015 |

**Table 9-1 (*Continued*)**

| 100 Tickers | 1340 Periods | Indicator: %D(14) | | Buy Line: 20 | Sell LIne: 80 |
|---|---|---|---|---|---|

| Ticker | %Gain/CS | %AvGn–CS | %Gain/Ind | %AvGn–Ind | %Gain/Fil | %AvGn–Fil |
|---|---|---|---|---|---|---|
| OXY | –5.2100/34 = | –0.1532 | –95.790/22 = | –4.3541 | 35.700/12 = | 2.9750 |
| PCI | 59.350/27 = | 2.1981 | –39.070/30 = | –1.3023 | 10.510/11 = | 0.9555 |
| PEP | 48.670/40 = | 1.2168 | –64.410/29 = | –2.2210 | –8.0600/19 = | –0.4242 |
| PRD | 94.990/43 = | 2.2091 | 35.510/32 = | 1.1097 | 6.8300/11 = | 0.6209 |
| PRI | 88.500/31 = | 2.8548 | 61.500/17 = | 3.6176 | –18.870/10 = | –1.8870 |
| RAL | 20.980/42 = | 0.4995 | –14.600/33 = | –0.4424 | 41.410/17 = | 2.4359 |
| ROK | 67.470/43 = | 1.5691 | –54.640/36 = | –1.5178 | 47.540/12 = | 3.9617 |
| RTN | 20.710/41 = | 0.5051 | –17.510/30 = | –0.5837 | 36.190/15 = | 2.4127 |
| S | –9.540/39 = | –0.2446 | –65.700/24 = | –2.7375 | –26.360/13 = | –2.0277 |
| SKY | 8.6600/38 = | 0.2279 | 65.150/36 = | 1.8097 | –5.6200/17 = | –0.3306 |
| SLB | –11.320/33 = | –0.3430 | 126.96/39 = | 3.2554 | 39.730/9 = | 4.4144 |
| SO | –3.4300/35 = | –0.0980 | 2.8500/25 = | 0.1140 | 0.9200/12 = | 0.0767 |
| T | –78/23 = | –3.3913 | 58.960/29 = | 2.0331 | –32.240/9 = | –3.5822 |
| TAN | 31.440/34 = | 0.9247 | 170.86/41 = | 4.1673 | 72.490/19 = | 3.8153 |
| TDY | 147.34/36 = | 4.0928 | 151.03/30 = | 5.0343 | 112.80/7 = | 16.114 |
| TEK | –18.000/35 = | –0.5143 | –29.300/26 = | –1.1269 | 15.590/15 = | 1.0393 |
| TOY | 5.4200/33 = | 0.1642 | –45.240/35 = | –1.2926 | 35.420/9 = | 3.9356 |
| TXN | 115.95/35 = | 3.3129 | –26.990/29 = | –0.9307 | 118.08/17 = | 6.9459 |
| UAL | 60.960/32 = | 1.9050 | 71.950/36 = | 1.9986 | –84.110/14 = | –6.0079 |
| UIS | –30.310/30 = | –1.0103 | –253.25/22 = | –11.511 | –71.730/14 = | –5.1236 |
| UPJ | 29.830/38 = | 0.7850 | –36.960/26 = | –1.4215 | 14.430/10 = | 1.4430 |
| UTX | 63.830/35 = | 1.8237 | 92.380/37 = | 2.4968 | 50.080/13 = | 3.8523 |
| WMB | –0.8200/52 = | –0.0158 | 41.210/36 = | 1.1447 | 73.800/17 = | 4.3412 |
| WMT | 12.000/34 = | 0.3529 | –78.470/28 = | –2.8025 | –24.860/8 = | –3.1075 |
| WY | 4.5100/43 = | 0.1049 | –25.080/28 = | –0.8957 | –58.990/11 = | –5.3627 |
| XON | –8.5400/40 = | –0.2135 | –35.710/27 = | –1.3226 | 27.000/10 = | 2.7000 |
| XRX | –73.810/32 = | –2.3066 | 63.880/33 = | 1.9358 | 8.9600/17 = | 0.5271 |
| Trades/Gains: (Averages) | 37.1 | 0.40 | 30.1 | 0.02 | 13.7 | 0.60 |

Tickers–C:\n2\sp100\ 890103 TO 920331 Report: 04-05-1992 @ 17:50:54

Industrial Average are shown in Table 9-2. The threshold values were changed slightly to open the signal area for the filtering to take place. Results similar to those using the S&P 100 stocks appear using just these 30 stocks. Trading strictly using candle patterns for buy and sell signals resulted in an average of 21.1 trades over the two-year period,

**Table 9-2**
## FILTERING STATISTICS

**100 Tickers 1340 Periods Indicator: %D(14) Buy Line: 30 Sell LIne: 70**

| Ticker | %Gain/CS | %AvGn–CS | %Gain/Ind | %AvGn–Ind | %Gain/Fil | %AvGn–Fil |
|---|---|---|---|---|---|---|
| AA | 30.880/27 = | 1.1437 | 62.420/26 = | 2.4008 | 29.450/16 = | 1.8406 |
| ALD | –29.060/21 = | –1.3838 | –11.820/27 = | –0.4378 | –45.670/10 = | –4.5670 |
| AXP | 86.480/27 = | 3.2030 | –53.460/21 = | –2.5457 | 62.140/13 = | 4.7800 |
| BA | –30.040/15 = | –2.0027 | –33.640/28 = | –1.2014 | 1.1800/10 = | 0.1180 |
| BS | 55.940/25 = | 2.2376 | 1.4100/25 = | 0.0564 | –33.110/9 = | –3.6789 |
| CAT | –36.410/19 = | –1.9163 | 5.0700/24 = | 0.2113 | –26.550/8 = | –3.3188 |
| CHV | 6.8900/29 = | 0.2376 | –2.2900/24 = | –0.0954 | 25.320/16 = | 1.5825 |
| DD | –20.660/27 = | –0.7652 | –51/17 = | –3 | –2.1900/15 = | –0.1460 |
| DIS | –20.810/13 = | –1.6008 | –33.760/20 = | –1.6880 | –12.650/10 = | –1.2650 |
| EK | –21.500/15 = | –1.4333 | 22.630/27 = | 0.8381 | –11.380/9 = | –1.2644 |
| GE | 9.3900/12 = | 0.7825 | 23.900/26 = | 0.9192 | –8.8700/5 = | –1.7740 |
| GM | 3.2600/18 = | 0.1811 | –8.4400/25 = | –0.3376 | 50.980/11 = | 4.6345 |
| GT | –42.200/19 = | –2.2211 | –40.190/22 = | –1.8268 | –15.560/11 = | –1.4145 |
| IBM | 2.9300/22 = | 0.1332 | 33.430/21 = | 1.5919 | 19.250/10 = | 1.9250 |
| IP | 39.790/18 = | 2.2106 | –18.600/19 = | –0.9789 | 49.110/13 = | 3.7777 |
| JPM | 36.270/24 = | 1.5113 | –23.820/21 = | –1.1343 | 51.770/10 = | 5.1770 |
| KO | –4.2100/21 = | –0.2005 | –45.480/22 = | –2.0673 | –35.450/7 = | –5.0643 |
| MCD | 16.580/25 = | 0.6632 | –2.8300/21 = | –0.1348 | –0.2900/15 = | –0.0193 |
| MMM | 35.220/25 = | 1.4088 | –25.220/24 = | –1.0508 | 10.860/10 = | 1.0860 |
| MO | 9.2600/20 = | 0.4630 | –27.940/21 = | –1.3305 | –25.820/5 = | –5.1640 |
| MRK | –52.900/16 = | –3.3063 | –22.080/19 = | –1.1621 | –30.250/8 = | –3.7813 |
| PG | –14.220/15 = | –0.9480 | –15.740/29 = | –0.5428 | –49/7 = | –7 |
| S | –10.910/26 = | –0.4196 | –62.430/18 = | –3.4683 | –7.8700/12 = | –0.6558 |
| T | –40.380/12 = | –3.3650 | –50.950/23 = | –2.2152 | 10.050/7 = | 1.4357 |
| TX | 10.840/21 = | 0.5162 | –9.600/27 = | –0.3556 | 20.510/14 = | 1.4650 |
| UK | –25.700/27 = | –0.9519 | 95.040/29 = | 3.2772 | 30.390/10 = | 3.0390 |
| UTX | 58.920/21 = | 2.8057 | 13.280/27 = | 0.4919 | 43.640/12 = | 3.6367 |
| WX | 89.440/27 = | 3.3126 | 61.730/32 = | 1.9291 | 57.200/14 = | 4.0857 |
| XON | –18.250/24 = | –0.7604 | –39.700/22 = | –1.8045 | 7.8100/10 = | 0.7810 |
| Z | 20.390/21 = | 0.9710 | 42.430/23 = | 1.8448 | 71.520/11 = | 6.5018 |
| Trades/Gains: (Averages) | 21.1 | 0.02 | 23.7 | –0.46 | 10.6 | 0.23 |

Tickers–C:\n2\dow\ 900424 TO 920331 Report: 04-06-1992 @ 06:44:09

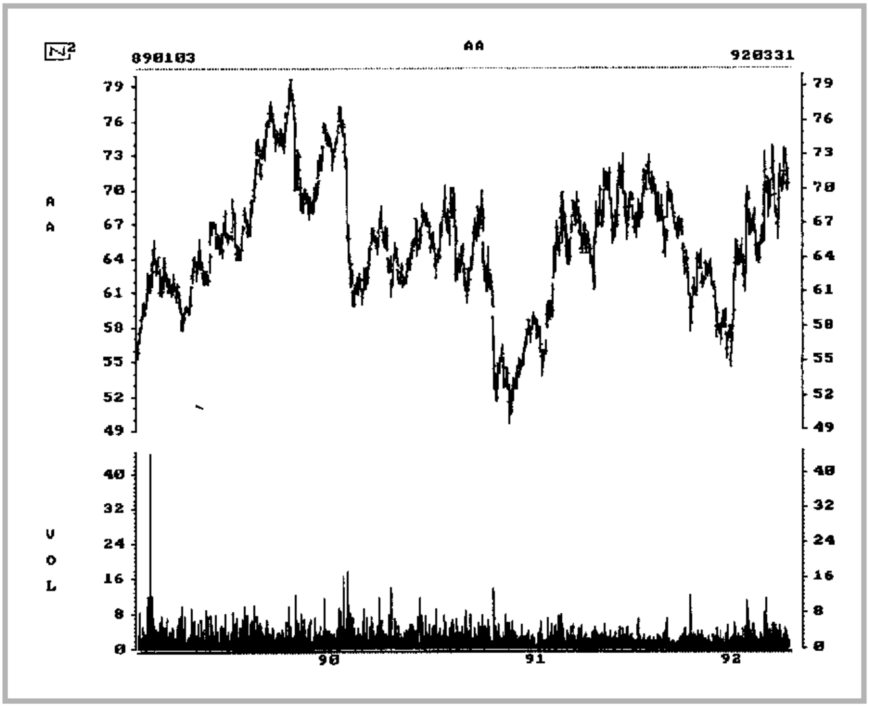
with an average per-trade gain of 0.02%. Using the indicator %D gave an average number of trades of 23.7, with an average gain (loss) per trade of negative 0.46%. Finally, using the filtered candle pattern as the trading device yielded an average number of trades of only 10.6, with an average gain per trade of 0.23%. Again, it must be stressed that it is the relationship of these numbers that is important, not their actual values.

## INDIVIDUAL STOCK ANALYSIS

Selecting a stock to use in all of the different indicator examples was quite a problem. Not that is was difficult to find a good one; most work quite well with the filtering concept. The problem was in maintaining credibility so that you would not think that the universe was combed looking for the perfect example. Therefore, it was decided to use the first stock in both lists of the S&P 100 and the Dow Industrials, Alcoa (AA). Figure 9-5 shows a high-low bar chart of Alcoa along with a histogram of its volume for the period of analysis used in the following examples.

In Figures 9-6 through 9-18, 13 different indicators are displayed above the candlestick charts of AA. The chart displays only the latest 140 trading days, but the trading analysis still covers the data beginning January 1, 1989, and ending March 31, 1992 (3-¼ years). The up and down arrows at the top of the chart (above the indicator) show the signals given automatic candle pattern identification arrows showing each candle pattern and whether it is bullish (up arrow) or bearish (down arrow). If the candle pattern arrow is shown with a double head, it represents a filtered candle pattern. The box in the lower right corner of the charts displays the trading information for the three trading methods. The information in the box shows the effective dates, the total percentage gain or loss, the number of trading signals, and the

Figure 9-5




average percentage gain or loss per trade. You will note that the trading results of the candle patterns by themselves will be the same for all examples. The data did not change, therefore the candle patterns are the same. Only the indicator and, therefore, the filtered candle patterns will change with each example. For all indicator examples, the total gain using candle patterns alone for trading Alcoa (AA) was 45.8% over the period from January 3, 1989 to March 31, 1992. There were 40 trades, which made the average gain per trade equal to 1.14%.

The price of Alcoa on the first day, January 3, 1989, was 55.875 and on the last day, March 31, 1992, was 70.5. So that you will have a basis for judgment, a buy and hold strategy would have yielded slightly more than 26%, Again, neither calculations for commissions nor execution slippage have been figured, nor have the figures been annualized. Because the trading strategy has been kept so simple, one must consider only the relative values when viewing these concepts.

One more thing might not be obvious: all trading is figured up to the value of the closing price on the last day of the data. This does not necessarily mean that a trading signal occurred on that day, only that the percentage gain or loss was calculated as if a valid signal had been given.

Figure 9-6 shows the %D indicator for 14 days, using threshold values of 20 and 80 for the trading signals. The total gain for the filtered candlesticks was not significantly different from that for the indicator alone. However, the number of trades was significantly reduced, bringing the average gain per trade for the filtered candles up to 4.79%, in other words, over 100% better than the indicator.

Chart 9-7 shows the faster %K indicator for 14 days using thresh-

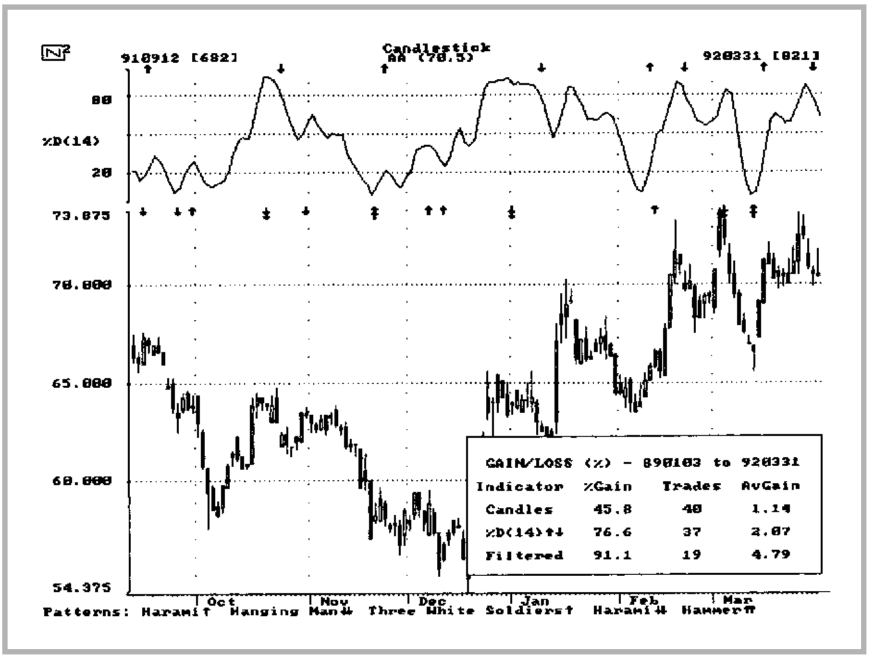



Figure 9-6

Figure 9-7

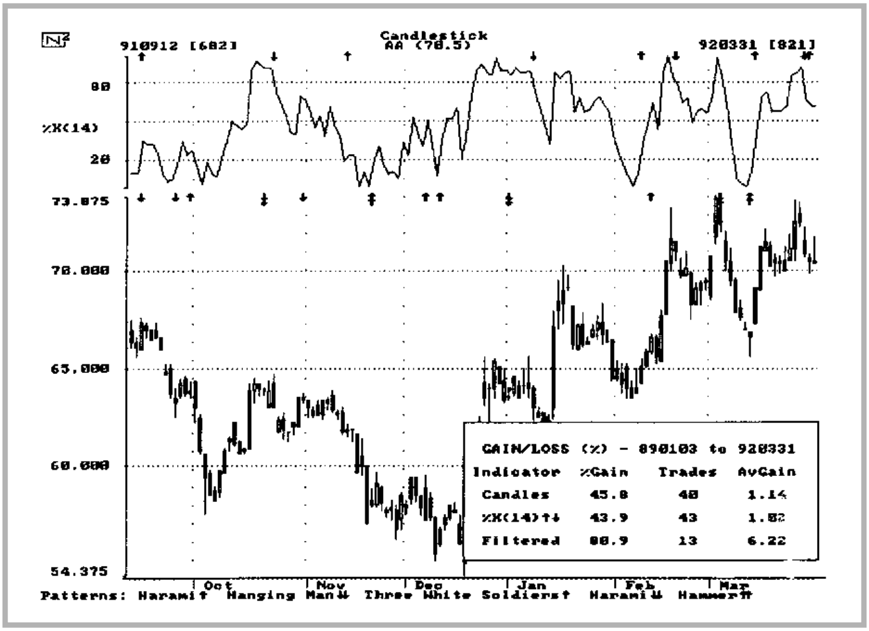
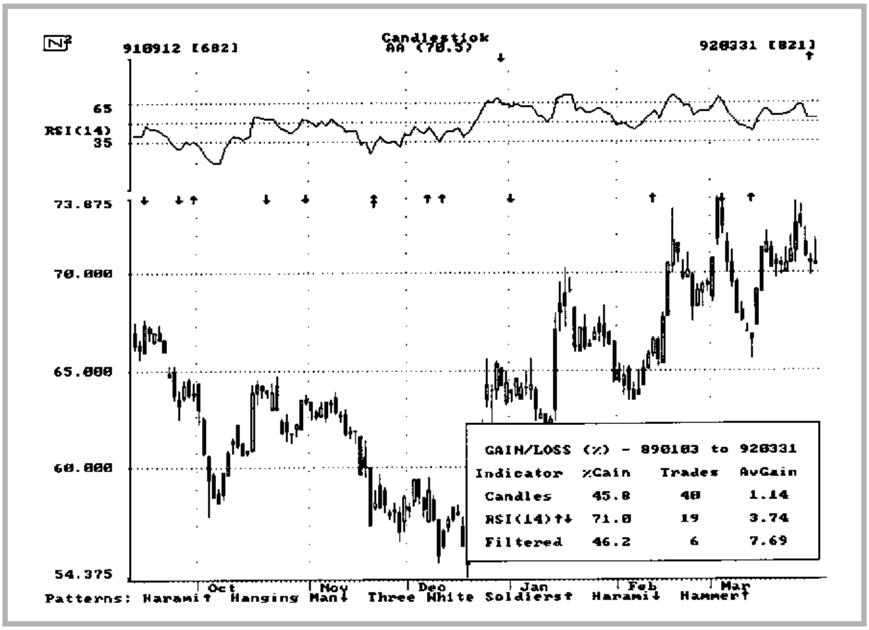



Figure 9-8



old values of 20 and 80. The difference between %K and %D is only that %D reacts slightly slower than %K. Remember, %D is just a three-period moving average of %K. In this example, the filtered candles were over three times better than %K when looking at the average gain per trade.

Because %K reacts quicker than %D, one could lower the upper threshold and raise the lower threshold to give a larger filtering area. This would normally generate more trades. For example, by changing the threshold to 25 and 75, the filtered candles gained 71.6%, with 21 trades for an average gain per trade of 3.41%. Using a larger filtering area was not quite as good as the original example, however, because although it did, in fact, increase the number of trades it did not increase the overall gain. The results of the indicator %K were only slightly improved to 51.9%. Opening up the thresholds to 30 and 70 increased the filtered candle trades to 27 with a gain of only 31.5%. The indicator actually decreased in performance to 45.6%. This shows that the higher thresholds of 20 and 80 tend to produce better results for filtering without changing the indicator results appreciably.

Figure 9-8 shows Wilder's RSI for 14 days, with threshold values of 35 and 65. The average gain for the filtered candles was over twice as good as the average gain from RSI. When you consider that there were also fewer trades, the average gain per trade for the filtered candles was exceptionally better than RSI.

Figure 9-9 shows the money flow index. Money flow is calculated similarly to RSI, but the days when the price closes higher are averaged separately from the days when the price closes lower. In this case a period of 21 days was used for the smoothing of both the up closes and the down closes. Prior to smoothing, the change in price each day is multiplied by the volume for that day. This way an up day with large volume would cause a larger move in the indicator than would a similar up day with little volume. Once the two averages are calculated, they are further operated upon to produce an indicator that moves between 0 to 100.

As you can see from the trading box in Figure 9-9, the filtering concept once again performs much better than the indicator itself, even though the indicator did quite well.

Figure 9-10 shows an indicator known as the rate of change. Rate of change is a fairly simple concept that is widely used by many analysts. Here a 10-day rate of change is used by taking the percentage difference between the closing price today and the closing price 10 days ago. For example, if the value of the rate of change indicator were 7.5%, one could deduce that the price on that day was 7.5% greater than the price 10 days ago.

The trading signals for the indicator cannot be given by thresholds because the up and down values are theoretically unlimited. Therefore, the trading signals are generated by the crossing of the indicator with its own 10-period smoothing. Ten periods for the smoothing value is used for most indicators that work this way. Better values may exist for certain stocks or commodities, but 10 seems to be consistently good.

The rate of change indicator did better than the candle patterns and much better than the filtered patterns when looking at total gain. Because the filtered candles almost always result in fewer trades, the average gain was better with the indicators, but not significantly so. The filtering area occurs after the indicator crosses the zero line and before the indicator crosses its own smoothing.

Figure 9-11 shows Arms' Ease of Movement Indicator for 13 periods. The signal is generated when it crosses its own 10-period smoothing. Ease of Movement is a numerical method used to quantify the shape of a box used in Equivolume charting. Arms takes a ration of the box width to the range. Heavy volume days with the same price range results in a higher box ratio and, therefore, difficult movement.

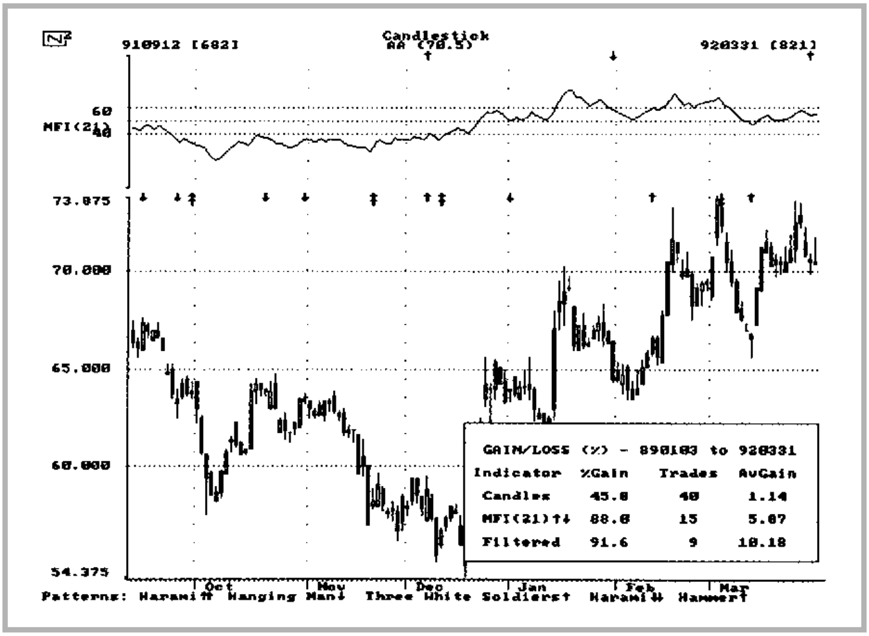



Figure 9-9

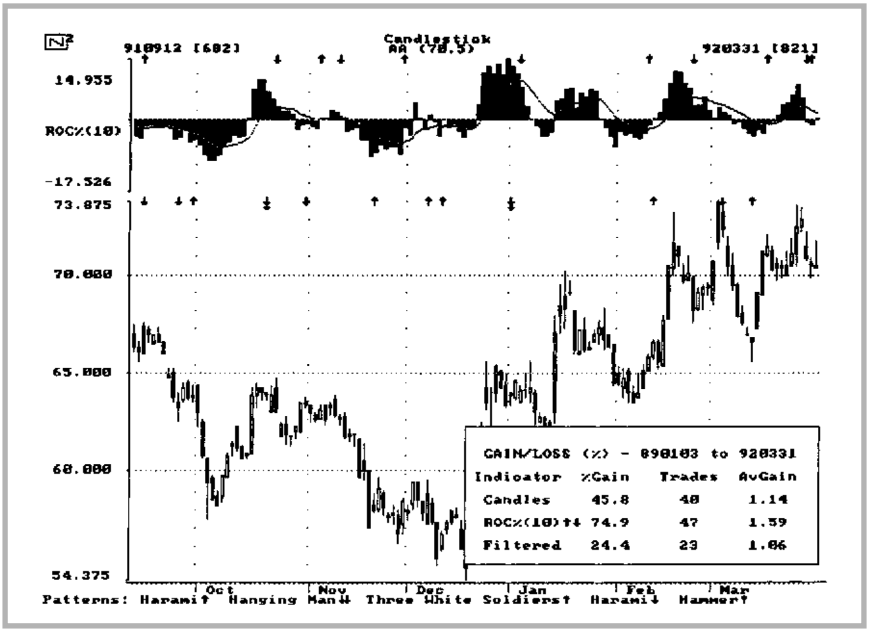
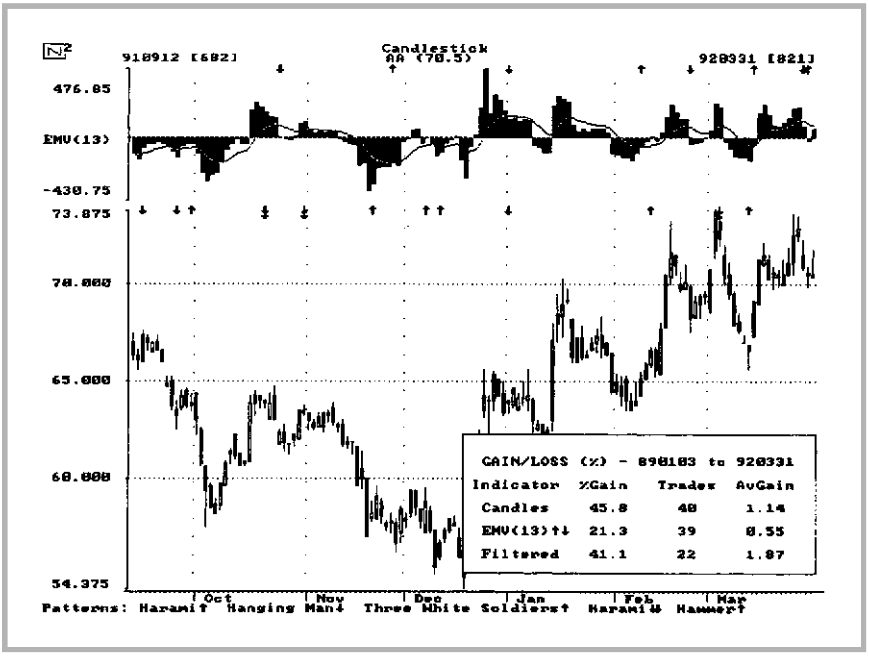



Figure 9-10

**Figure 9-11**




Based upon total gain, this indicator did not do better than candles alone or filtered candles. Likewise, when the number of trades in considered, filtered candles did much better.

Figure 9-12 shows the double momentum oscillator for 18 periods. Like most oscillators, a signal is generated when it crosses its own 10-day smoothing. The double momentum oscillator is a combination of two rate of change calculations, which are 20% above and below the value set for the indicator. In this example, the indicator value is set for the indicator. In this example, the indicator value is set at 18, so the two rate of change calculations are 14 and 22.

In this example, the filtered candles greatly outperformed the indicator.

Figure 9-13 shows the linear trend indicator for 15 periods. The linear trend indicator is based upon the slope of a least square fit over

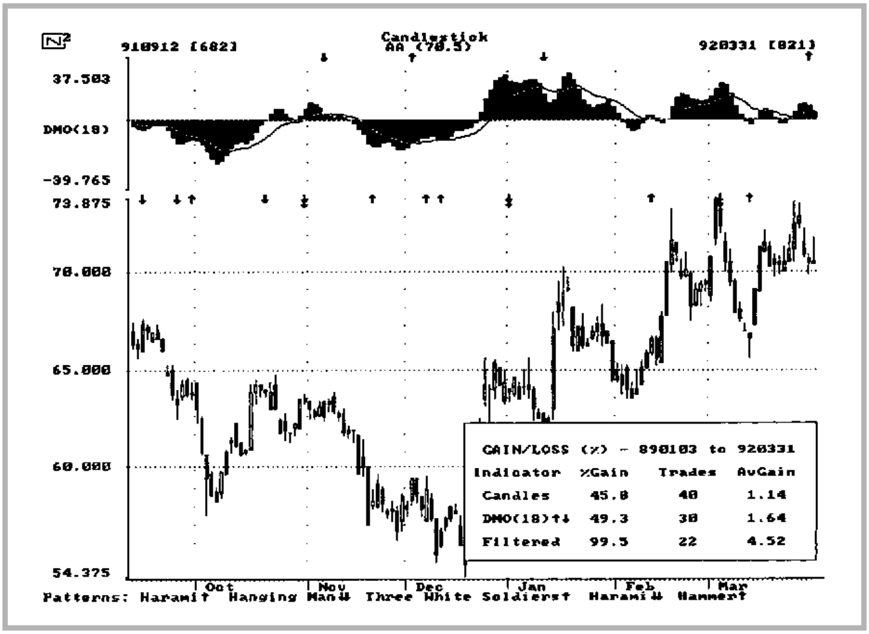



Figure 9-12

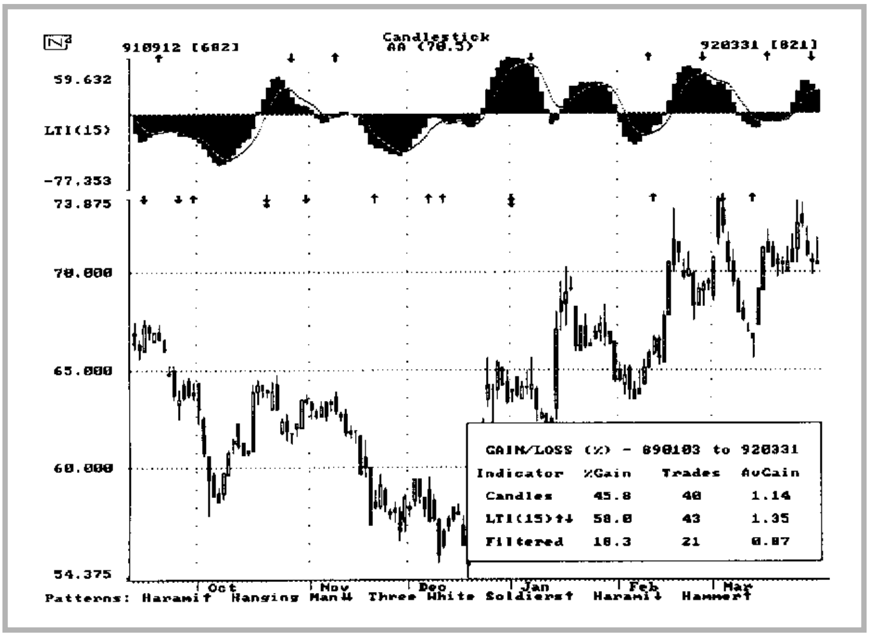



Figure 9-13

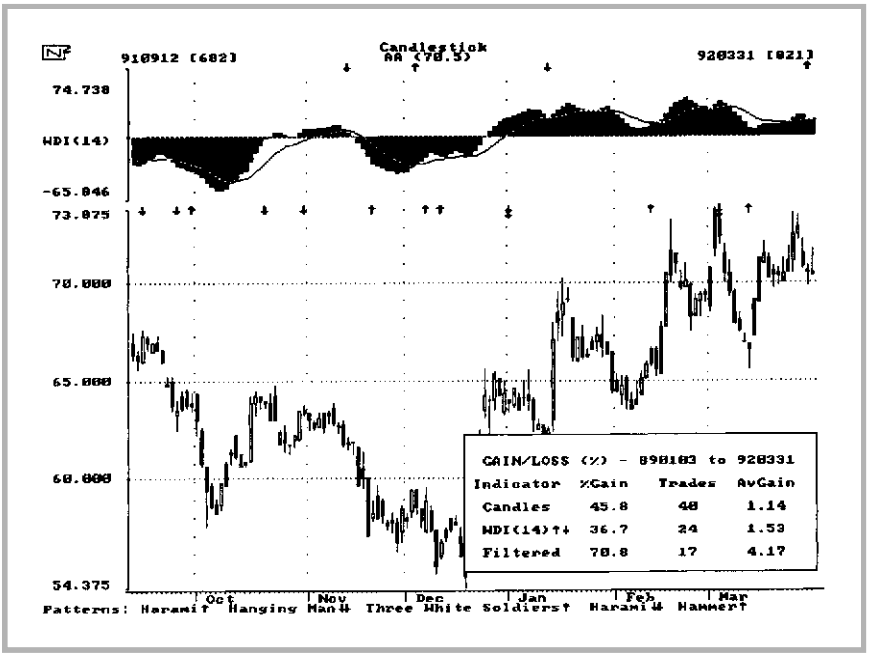
the chosen period, in this case 15 days. Because the LTI is such a smooth line, a shorter 5-day crossover smoothing was used.

From the trading box in Figure 9-13, the indicator generated good results, but the filtering concept failed to do better than the indicator or the candles. Filtered candlesticks obviously do not work every time.

Figure 9-14 shows Wilder's Directional Index for 14 periods. Again, signals are generated when it crosses its own 10-day smoothing. Wilder developed the directional index along with the RSI in 1978 (see bibliography). Using signals from a simple crossover smoothing is not the method Wilder suggested for its use. However, that was the only method that would generate a filtering area.

The filtering concept did quite well here also. Notice that even though the indicator did not do very well, the filtered candles did almost three times better.

**Figure 9-14**



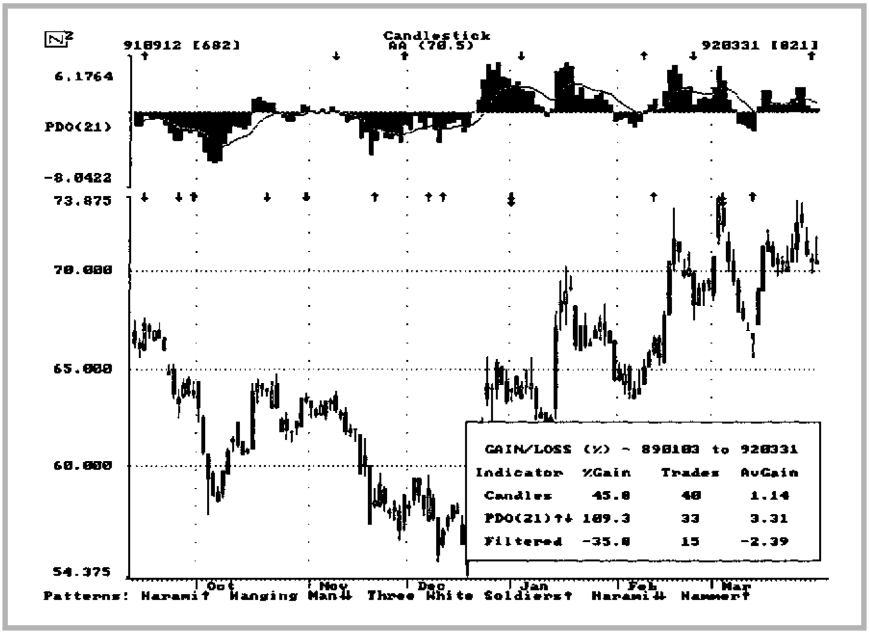



Figure 9-15

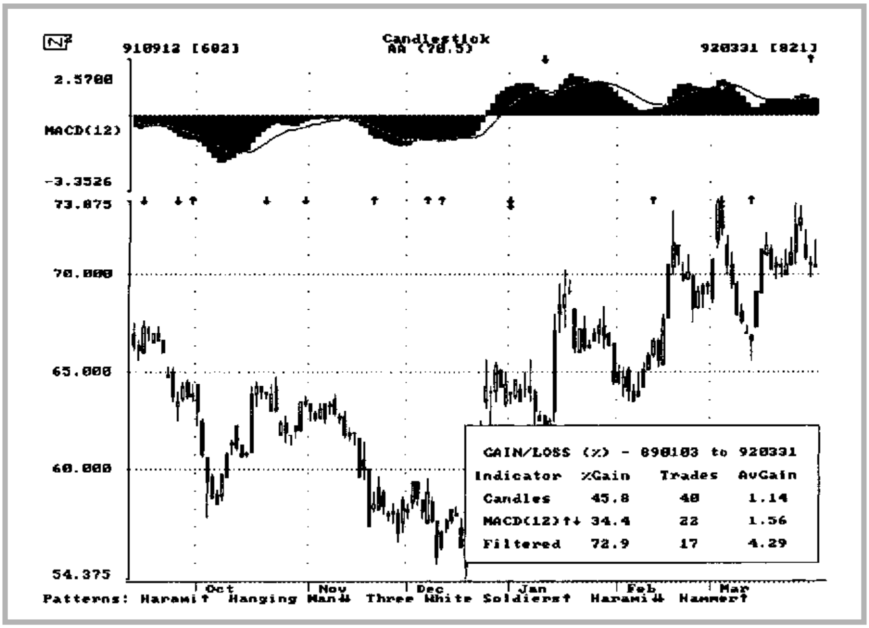



Figure 9-16

Figure 9-15 shows the price detrend oscillator for 21 periods. This indicator is the difference between the closing price and a smoothing of the closing price, in this case 21 days. Signals are generated when PDO crosses its own 10-period smoothing.

Here is an example where the indicator was exceptional and the filtered candles were a failure. The suspected problem is in defining the filtering area used on the indicator.

Figure 9-16 shows Appel's Moving Average Convergence Divergence Indicator, known as MACD. MACD is an extension of the price detrend oscillator, in that another smoothed value is used instead of the closing price. MACD uses the difference between a 12-day smoothing and a 25-day smoothing. Signals are generated when this difference crosses its own 9-day smoothing. Nine days were used here because that is the popular setting used by most analysis. Incidentally, in keeping with the previous use of 10 days for the smoothing value, it actually improved the indicator trading results by over 7%.

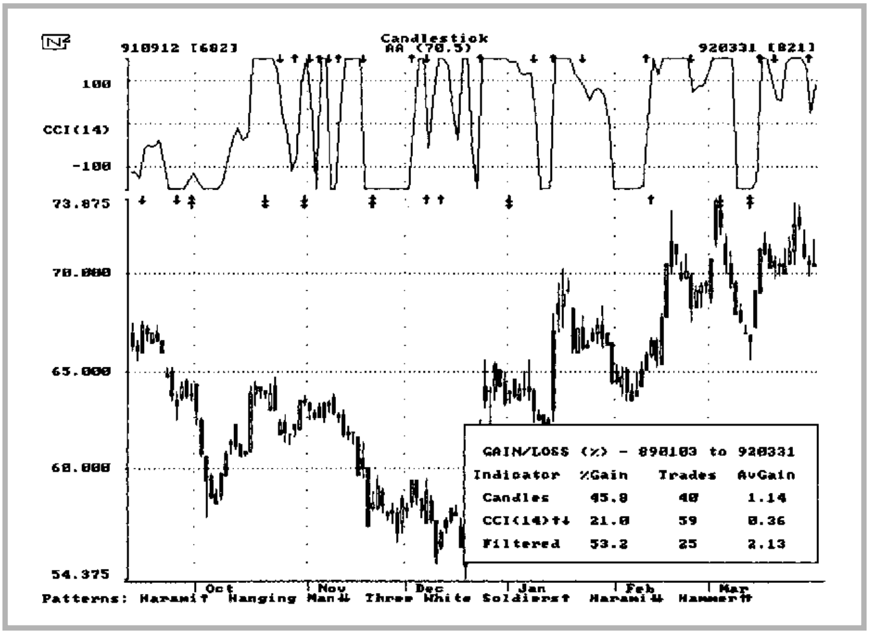
MACD did not perform well in this example. However, filtered candle patterns yielded an average of 4.29% per trade.

Figure 9-17 shows Lambert's Commodity Channel Index for 14 periods. Signals are given whenever CCI crosses the thresholds of 100 and –100. The Commodity Channel Index was designed for use with commodities that exhibit cyclical and/or seasonal characteristics. It consists of the mean deviation over the number of periods selected, in this case, 14.

Filtered candles, again, did exceptionally well when compared to the indicator or candle patterns.

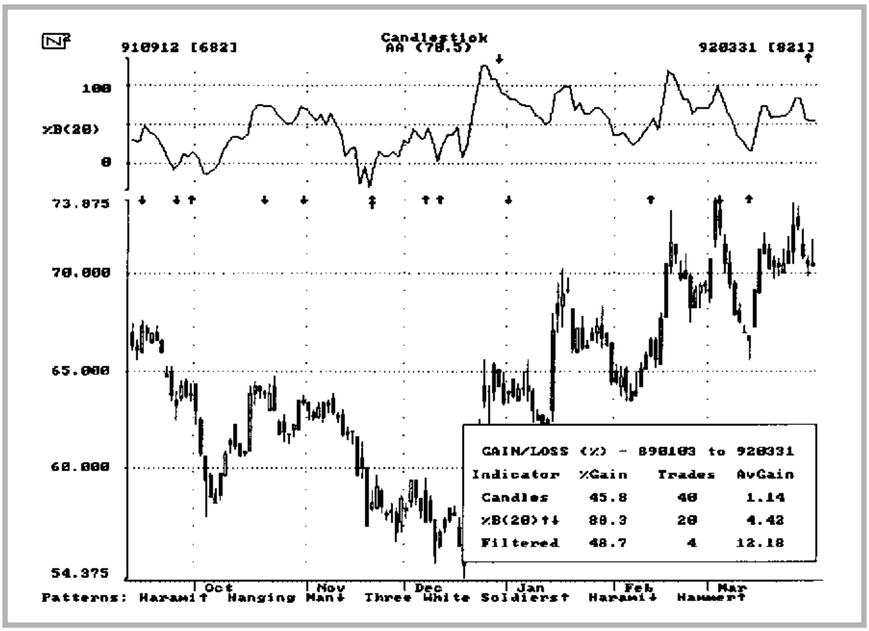
Figure 9-18 shows Bollinger's Oscillator, %B for 20 periods. %B is another method of displaying the Bollinger Bands developed by John Bollinger. Bollinger Bands used two standard deviations over a period of 20 days to encase about 95% of the price action. It is an excellent way to show the volatility of the market. %B

Figure 9-17




| GAIN/LOSS (%) - 890103 to 920331 | | | |
|---|---|---|---|
| Indicator | %Gain | Trades | AvGain |
| Candles | 45.8 | 40 | 1.14 |
| CCI(14)↑↓ | 21.0 | 59 | 0.36 |
| Filtered | 53.2 | 25 | 2.13 |

Figure 9-18




| GAIN/LOSS (%) - 890103 to 920331 | | | |
|---|---|---|---|
| Indicator | %Gain | Trades | AvGain |
| Candles | 45.8 | 40 | 1.14 |
| %B(20)↑↓ | 88.3 | 20 | 4.42 |
| Filtered | 48.7 | 4 | 12.18 |

looks merely at the closing price relative to the upper and lower Bollinger Bands, much in the same way as Stochastics are calculated. %B is a measure of where the closing price is relative to the Bollinger Bands. Signals are generated whenever %B exceeds 100% and 0%.

From the trading box in Figure 8-18, you can see that %B by itself gives excellent trading results, but when used as a filter for candle patterns, the results for average gain are even better.

## FILTERED CANDLE PATTERN PERFORMANCE

Table 9-3 shows more recent results of candle patterns and eleven technical indicators that were used to filter the candle patterns. The results speak for themselves. Filtering candle patterns improved performance across the board. Filtering candle patterns with any of the indicators yielded results that were better than using candle patterns by themselves.

The table shows the number of trades using each indicator as a filter, along with the thresholds or crossing values of the indicator used as the filter. It shows the best trade and the worst trade performance. At the bottom of the table, the results are summarized and displayed in the order of Net Percentage Gain (Net%Gain).

## CONCLUSION

If you couple the facts presented in the previous chapter showing how candle patterns performed relative to other technical indicators, and then consider the filtering concept's obvious improvement to that, you have a winner. It should be obvious that filtering candle

**Table 9-3**

## FILTERED CANDLE PATTERN PERFORMANCE—NET % GAIN

**7275 Stocks** MTBT = Mean Time Between Trades in Days
**4,467,335 Analysis Days**
**April 30, 2002 to December 31, 2004 (675 trading days)**

| Indicator | NSINC | CCI | %B | RSI | %K | %D |
|---|---|---|---|---|---|---|
| Total | 26089 | 12019 | 18986 | 19201 | 11335 | 15344 |
| MTBT | 138 | 48 | 98 | 143 | 46 | 64 |
| Best Gain: | 611 | 119 | 572 | 424 | 131 | 137 |
| Worst Loss: | -92 | -49 | -98 | -92 | -62 | -68 |

| Indicator | MFI | ROC | EMV | PDO | MACD | CANDLES |
|---|---|---|---|---|---|---|
| Total | 15765 | 10668 | 11696 | 8697 | 9285 | 7030 |
| MTBT | 74 | 45 | 45 | 50 | 82 | 22 |
| Best Gain: | 160 | 161 | 125 | 161 | 171 | 65.4 |
| Worst Loss: | –68 | –45 | –54 | –54 | –80 | –51 |

| Filter | Thresholds | | Gainers | | Losers | | Both | |
|---|---|---|---|---|---|---|---|---|
| Name (Days) | Buy | Sell | Total | Avg%Gain | Total | Avg%Loss | Total | Net%Gain |
| NSINC | 11 | 89 | 4198 | 13.6 | 2588 | –12.0 | 6786 | 3.8 |
| RSI (14) | 35 | 65 | 4237 | 12.6 | 2594 | –13.0 | 6831 | 2.8 |
| %B (20) | 5 | 95 | 4178 | 10.2 | 2775 | –8.5 | 6953 | 2.7 |
| MFI (20) | 40 | 60 | 4363 | 7.4 | 2683 | –6.2 | 7046 | 2.2 |
| %D (14) | 20 | 80 | 4304 | 7.1 | 2747 | –5.5 | 7051 | 2.2 |
| CCI (14) | –100 | 100 | 4316 | 5.3 | 2798 | –3.9 | 7114 | 1.7 |
| EMV (10) | 9 | 9 | 4353 | 5.1 | 2765 | –3.8 | 7118 | 1.6 |
| %K (14) | 20 | 80 | 4351 | 5.1 | 2766 | –4.0 | 7117 | 1.6 |
| ROC (10) | 9 | 9 | 4302 | 4.9 | 2839 | –3.7 | 7141 | 1.5 |
| MACD (12) | 9 | 9 | 4216 | 7.1 | 2795 | –7.3 | 7011 | 1.3 |
| PDO (18) | 10 | 11 | 4280 | 4.8 | 2839 | –4.2 | 7119 | 1.2 |
| CANDLES | 10 | 10 | 4473 | 2.7 | 2754 | -1.8 | 7227 | 1.0 |

patterns with popular indicators is an almost certain method of improving your trading results. Not only does it provide better overall gains from a simple trading methodology, it will almost always reduce the number of trades. Reducing the amount of trading will also reduce transactions costs and produce a much higher average gain per trade. Filtering works!

CHAPTER TEN

# Candlesticks for Traders

This chapter was contributed by Ryan Litchfield.

**A Note from Greg Morris:** "Candlesticks for Traders" is a totally new chapter in this third edition of *Candlestick Charting Explained*. Ryan Litchfield called me one day in the late 1990s and invited me to a downtown Dallas hotel for lunch. He was teaching a trading seminar and only had an hour. The hour went by so fast we could not believe it. Of course it is easy to sit and listen to someone praise your book, but Ryan took a totally new view on candlesticks, one that was really exciting. He invited me into the seminar to say a few words. His students were mesmerized by candlesticks, not from anything I said, but by what Ryan had been teaching them. We communicated over the last few years and met on occasion. Once I decided to do a third edition of this book, I thought a section by Ryan would be a great addition. It turned out to be much more and much better than I ever thought it would. I hope you agree.

## INTRODUCTION

In the neurotic world of trading, an edge of any sort can catch on quickly. Candlestick charting has steadily gained acceptance among traders and investors over the last two decades. The titillating allure of candlesticks comes from their foreign importation and exotic, storied past. They are now featured in almost every charting service and they are the focus of many Web sites and books. If they were just another way to display open, high, low, and close, they could not have captured the attention of so many people.

Candles bring with them some 200 years of application and interpretation and that makes them worthy of serious study and integration with Western tools, but for 20 years they have spread into the mainstream of Western technical analysis with little more than the translation of the old texts and enthusiasm.

Greg Morris, one of the original two proponents of candlesticks to the West, was the first to do statistical work on the frequency and accuracy of candle patterns, but computing power was so limited compared to now and the public interest was on learning this new system, not on some data charts in the back of the book. Now, finally, a thorough work has been done to look deep into what candles really are and are not—to place them in context and properly blend their actual skills and value with the tried and true tools of Western charting.

Candlesticks have been allowed to proliferate without proper perspective. They have gained almost mythical proportion as ancient and secret trading tools and self-proclaimed experts abound, but what are they really? How can they be fully and properly integrated with Western analytics? How accurate are they? Is accuracy their full contribution? What are the "good signals?" Do all the patterns have to be memorized? This book combines the first exhaustive and thorough statistical analysis of candlestick patterns with a thorough study of their accuracy and proper application to trading. While great credit and respect is due the pioneers of candlestick charting of the West, it is past time for this edition.

Greg Morris recognized the need to enhance and broaden his landmark work, and has done the most comprehensive statistical analysis ever on candlesticks. With the trading application analysis of Ryan Litchfield, this book sets the high-water mark for those who want to know how to properly integrate candlesticks into their trading. What follows from Ryan is the practical application and perspective traders need to really put candles in context. Candlesticks are not magical; they make sense, can be easily learned, and are only mysterious to the uninformed. Western pattern charting is far superior to candlesticks for trend and pattern recognition, but the two styles are not in competition. Candlesticks are a very short term (a few days) sentiment indicator while Western pattern trading can project price targets and behavior for weeks, months, and years. The delicate dance of support and resistance at pivotal price points is tremendously enhanced when bathed in candlelight.

Twenty years ago, without modern computing power the proper analysis of candlesticks was not possible and the hungry Western traders created a market that made it unnecessary. All previous attempts to do accuracy studies have lacked context and depth. This comprehensive work shines a long overdue bright light on candlesticks, and traders can now properly integrate East and West.

## EAST-WEST SYNERGY

When candlestick charting was introduced to the Western markets it was a novelty, but it now enjoys widespread acceptance. This may be explained in part by the natural human tendency to seek out a competitive advantage. The proliferation of financial publications, new electronic toys, new technical indicators, and trading software is evidence of that appetite to get ahead. Some traders seem to get an almost cultish, tunnel-visioned obsession about their favorite secret weapon or tool, and while candlestick charting is as good as or better than any charting tool, it is not a mysterious or magical secret weapon to divine the markets.

With about 200 years of application, candlesticks are the most tried and tested charting methodology, and they can be quite good at interpreting and predicting short-term behavior and short-term chart movement. Over the last century the West has also developed some great tools for chart pattern reading and technical analysis. The good news is that when properly integrated, candlesticks and Western chart analysis can combine to form a sum that is greater than its parts.

This chapter is focused on providing a foundation for traders to appreciate the real value and contribution that candlestick charting can make to Western traders. Details of pattern construction, recognition, and application will be explored in later chapters.

Candlesticks along with other technical toys and tools are of little value to a trader unless properly trained in their use. Unfortunately, the majority of traders who try to incorporate candles into their trading misunderstand what candlesticks can do, and generally expect more from candlesticks than they are capable of delivering. Traders should not expect candlestick signals to divine the market and call out trades.

The full integration of candlestick charting has been hampered by a tendency among many proponents to see them as an alternative. While they are a superior alternative to Western bar charts, they are not a substitute for Western chart patterns. The appropriate blending of East and West requires an understanding of:

- The unique value of candlesticks.
  - The application to trading and investing.
  - The process that generates price action and drives patterns.

- The way news affects price.
- The correlation with Western technical indicators that leads to the appropriate integration with the Western style pattern trading.

## So Who Needs Candlesticks?

There is a basic premise to build on here. Simply put, candlestick charting is not needed to trade well. Say what? In a book about the value of candlesticks, that may seem an odd premise. Granted, but it is key to understanding and appreciating the unique contribution they can make.

Consistent patterns with support and resistance define the entry points for bullish and bearish trades (see Figures 10-1 and 10-2). As

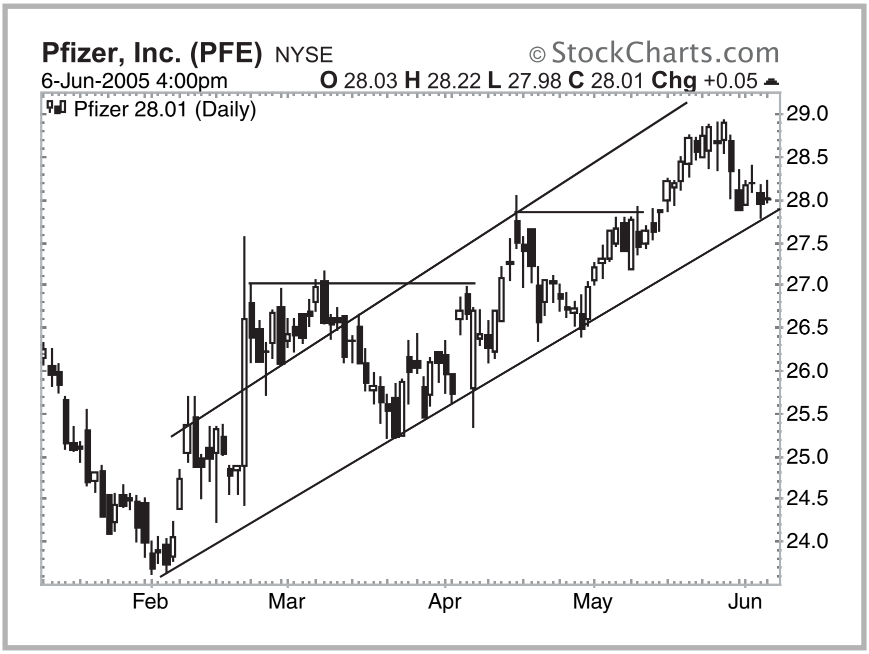
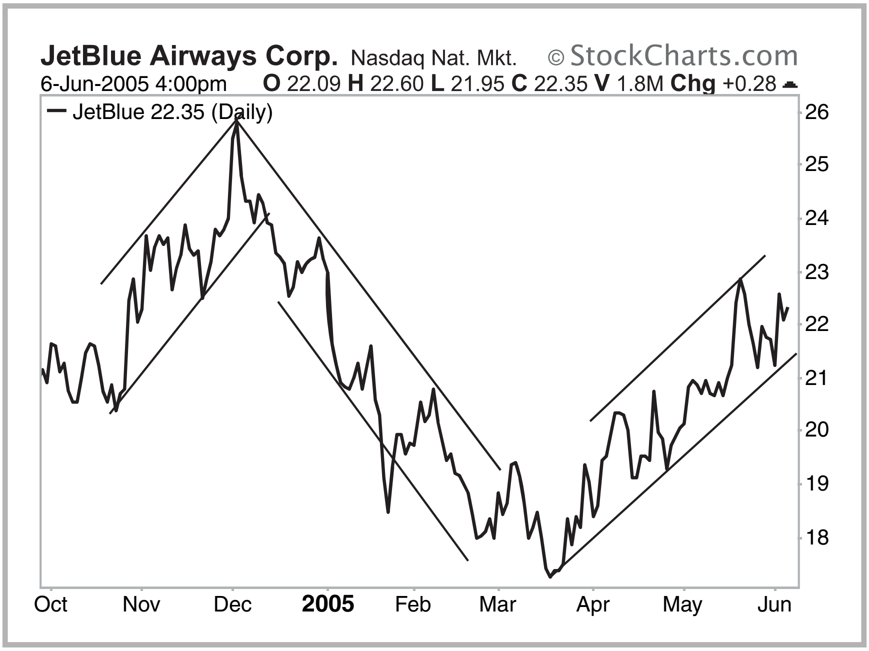



**Figure 10-1**

**Figure 10-2**




long as the pattern is intact, there is not much need for anything more than the picture to trade the pattern.

What candles bring to the table is a visual dynamic that reveals the attitude or behavior of the traders as they approach the pivot points of support and resistance. Trading is therefore enhanced by patterns that describe sentiment and behavior. Given that the patterns have been studied for over 200 years, their insight must be considered a valid addition.

## Investing versus Trading

### *Investing*

Candlesticks have little or no value to investors. Investing is fundamentally driven, and other than general lip service to buying low and catching an upside movement for a few months or years, it is a buy and hope approach to the market. Long-term bullish positions may be initiated by major pullbacks, or just the expectation that historically good companies tend to go up, or the ever popular "hot tip." Sadly, in most cases, institutional and public buying comes well after the ideal entry point, and selling is often near a bottom after the pain of a reversal gets too much to take.

Candlesticks are a short-term trading tool for fine-tuning entry and exit decisions, so they do not help long-term investing very much.

### *Trading*

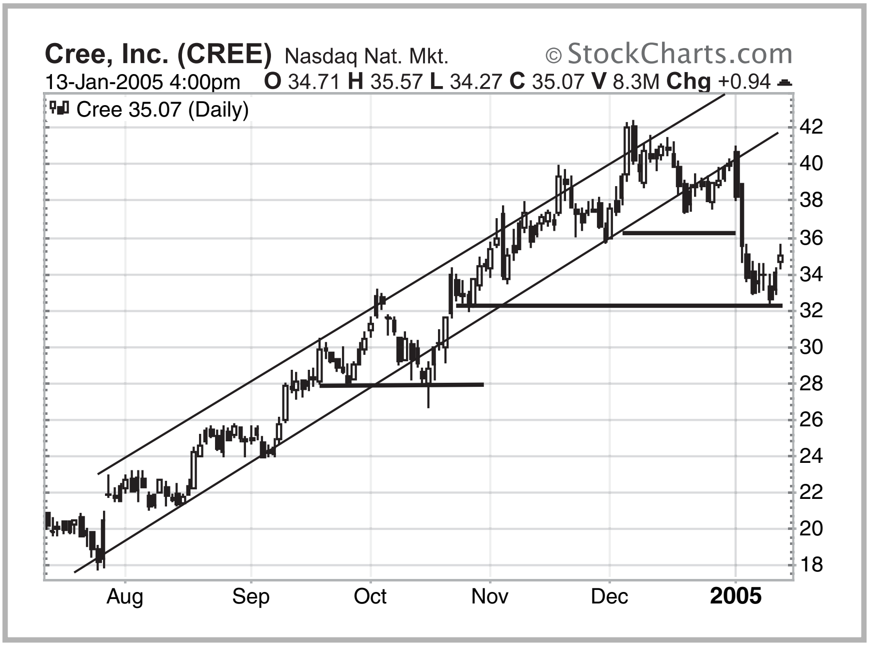
Trading by contrast is pattern driven and generally short term. Here candlesticks can be very valuable, as entry and exits are much more crucial. Pivot points are the recognizable and predictable price points where significant moves may take place. Trading is anticipating a potential price action, positioning to enter the early stage of the trade, adding to it as it develops, and then exiting as it matures and sets up a reversal. Trading is opportunistic, and it follows the surging of trends or the waves of an oscillating pattern. Trading also involves lots of reversals, and this is where candles shine the brightest (see Figure 10-3). Candlestick patterns are reversal signals; and even though continuation patterns are widely written about, they actually represent failed reversals.

Candlestick charting is therefore more valuable to traders than to investors because the short-term strength of candlesticks merges well with the cyclical nature of pattern trading.

## Price and Pattern Manipulation

Candles can add so much insight to trading, but how price action and patterns develop must be understand to properly integrate Japanese candlesticks with Western chart patterns.

Figure 10-3




The tendency for trading patterns to form is well documented, but very little is offered to explain why and how they form. Exploring why patterns develop will set the stage for the powerful contribution that candles can make to trading Western markets. The fact that a pattern exists is evidence of price manipulation, which in turn creates predictability that produces profitability for those who can see the patterns.

"Pattern = manipulation = predictability = profitability."

The likelihood of the price patterns not being manipulated is similar to a pile of lumber being dumped off a cliff and landing in the shape of a house. It's a pretty safe bet that someone has been manipulating the lumber (see Figure 10-4).

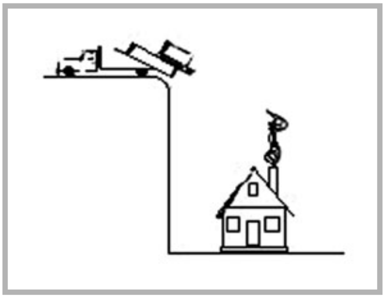


**Figure 10-4**

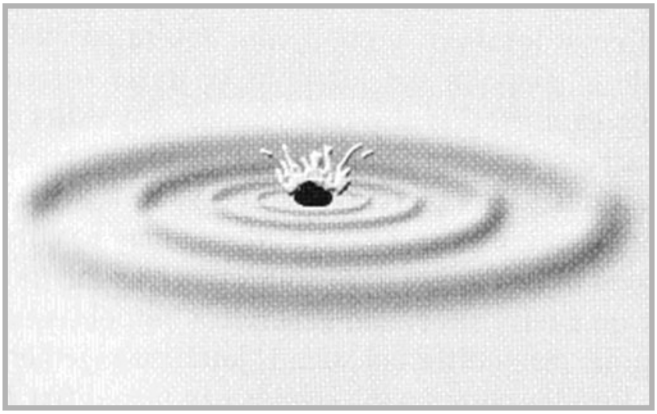
Chart patterns in stocks, commodities, and even in indexes is evidence that a diverse group of players can interact in a free market and somehow create a masterpiece. It is fascinating that a free market, where the players are supposedly not deliberately cooperating, consistently drops piles of lumber off cliffs that land in the shape of nice little houses with smoke coming out of the chimneys. The issue is not if it happens, but how and how candlesticks can help in trading those patterns.

## The Players

Traders come in various strengths and potencies, and there is a lead dog or two in every well-traded issue. Whether on the trading floor or on a yacht in Mission Bay San Diego, they are the E.F. Huttons or Warren Buffetts of that particular stock. When they take action everyone who is in the know pays attention. There is a reaction order among the various levels of traders that tends to create a chain reaction like the ripples from throwing a pebble into a pond.

The pebble represents the key trader or small group of key traders for a particular stock or commodity. The "Ax" (one name for key traders) makes a significant move, and a second tier of traders picks up the action. If successive waves of institutional traders and the public follow suit, a momentum swing is underway (see Figure 10-5).

**Figure 10-5**



The ripples that move out from the center are like the gradual entry of the rest of the cast into a directional price move of a stock.

So the Ax moves first, then other professionals pick up on the action, which stirs interest in institutions and managed funds and the public brings up the rear. It all works rather well considering that a big part of the cast (the public) does not even know that they are part of a production. This is like the ultimate reality show where part of the cast is oblivious to their roles, the other players, or even the game.

Now the key traders (the Ax and other professional traders) are very influential, but it takes sustained volume from the rest of the cast to really carry a directional move for very long. The days or weeks it may take to move from support to resistance (or vice versa) will take the participation of the rest of the players.

The key traders just get the directional move started. Because they cannot do it alone, the key traders make the move when they sense the public is ready to support it. If the key traders are right, the ripples carry their profitable positions on toward the next pivot point. As the trade moves forward they watch for weakening momentum, and will test each pivot point by buying or selling to determine if it is time to switch gears.

This sequence of participation starting with the key traders and continuing down to the last public buyers or sellers is what makes the patterns develop. The key traders wait to see the last buyers climb on board and then they short the trade to see if it starts a selloff. At the bottom, they wait until the selling pressure dries up and then they buy. A popular phrase is that the key traders want to have everyone on board at the top and be alone in their trading at the bottom (see Figure 10-6).

Sometimes the support does not materialize and the key traders know better than to fight the tape. They will quickly switch positions to find the right fit with the market. This can explain the many whipsaws that develop as the new directional move suddenly reverses and the early birds who are not alert get caught in the crossfire. The can-

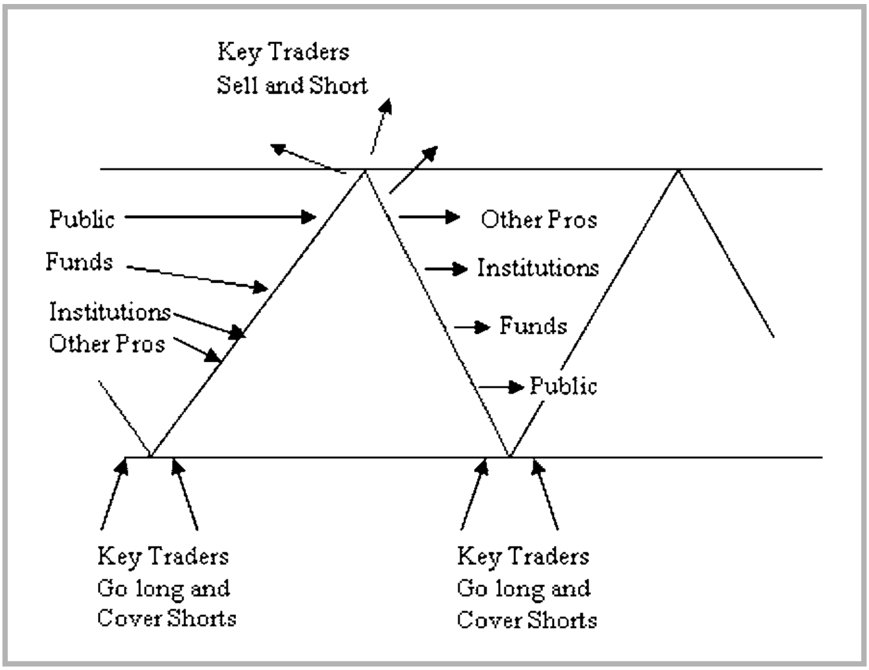



**Figure 10-6**

dles may have given a solid reversal signal, but then the price whips back the other way. The reason may not be clear, but there was a reason. There is a lot at risk here. The key traders will take the lead, but they will not ride a lame horse very long.

Traders do not like choppy or indecisive patterns because they can get violent and bloody or just boring. Climbing in a clothes dryer is just no fun. The actual direction of a price move is not really the issue as much as it is just getting a direction going. Actually, a downtrend is preferable because it triggers fear, which can make for very quick and profitable movements.

Now the unsuspecting public plays a crucial role in pattern development primarily because they suffer from collective short-term amnesia. They provide the heavy lifting to raise the trade to a resistance level, and they leave in a crescendo to signal the bottom. Human nature being what it is, the next upswing will likely draw all the bloodied and battered eternal optimists back onto the dance floor, unaware of their crucial role in the process. It sure helps to keep patterns repeating when one major group unwittingly, but repeatedly, steps up to be cannon fodder. The fact that the "less informed and less savvy public" includes a lot of fund managers who can't read a chart with any measure of skill also helps.

Candlesticks are valuable when used to read the behavior of the cast of players whose aggregate actions produce the patterns. Their behavior at support and resistance levels can be very telling and valuable. The candlesticks reflect the interaction of the players—their emotion, sentiment, and momentum as they revisit familiar ground.

## Pattern Variations

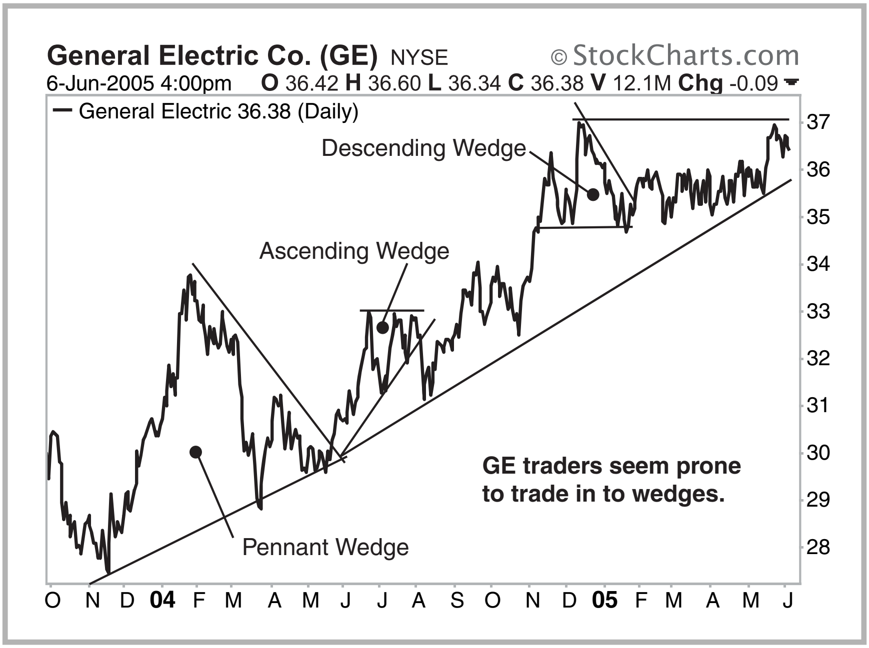
The idea that there are key traders in most well-traded stocks may be news to many, but it is true. The vast majority of traders and or investors will never meet or know of the key traders in a particular stock, but they will nonetheless feel the influence (great or small) that the key traders exert on the market. Some chart patterns suggest a very cohesive, almost cooperative interaction of the cast of players (key traders to the last private party), while others are anything but.

Nice, clean, predictable turns at support and resistance tell one story and sloppy, overlapping days with erratic reversals tell another (see Figures 10-7 and 10-8). Traders should first find stocks with well-defined trading patterns, and then use candlesticks to fine-tune their entry and exit points. But keep in mind, all the candlestick knowledge in the world won't prevent being whipsawed in some stocks. The players may just not have much cohesiveness. Some stocks must be played from a distance if at all.

With over 30,000 stocks, plus futures, commodities, currencies etc.; finding good patterns to trade will not be difficult. The great


**Figure 10-7**

**Figure 10-8**




news is that well-patterned stocks (which imply cohesive traders) tend to produce the most reliable candle signals. The behavior of one group of traders can vary dramatically from another, which brings up another interesting correlation: certain stocks tend to throw certain candlestick patterns more often than others (see Figures 10-9 and 10-10). This makes good sense given that candles simply reflect the activity of the traders. IBM has very little in the way of tails or shadows. The closes tend to be near the highs or lows of the day. Citigroup (C) tends to have long tails or shadows and show much more volatility.

A stock tends to have the same group of traders month in and month out, so repeated patterns should be reviewed to see how consistently they follow through. Because reversals tend to happen at predictable support and resistance levels, the study of the trader's

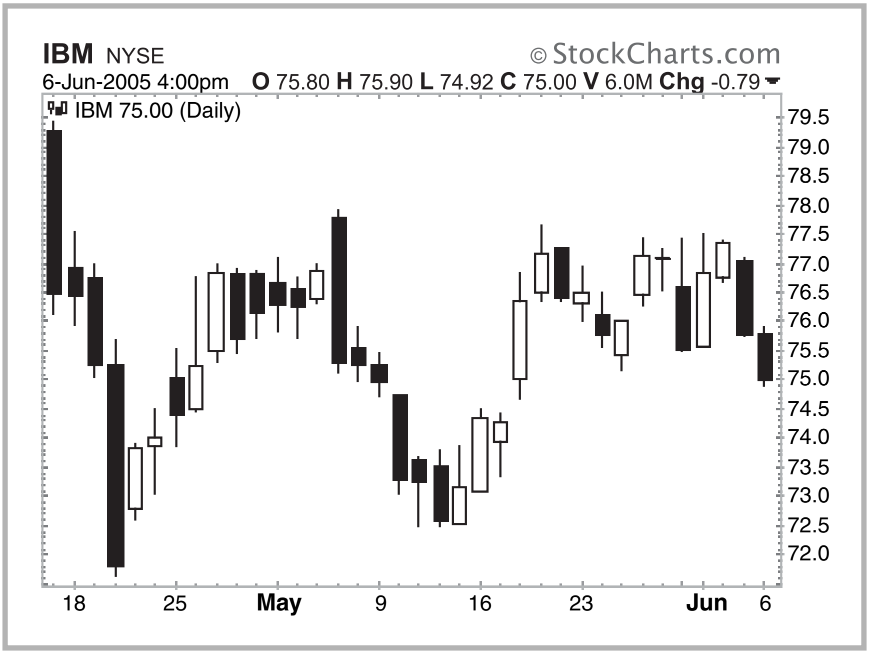



Figure 10-9

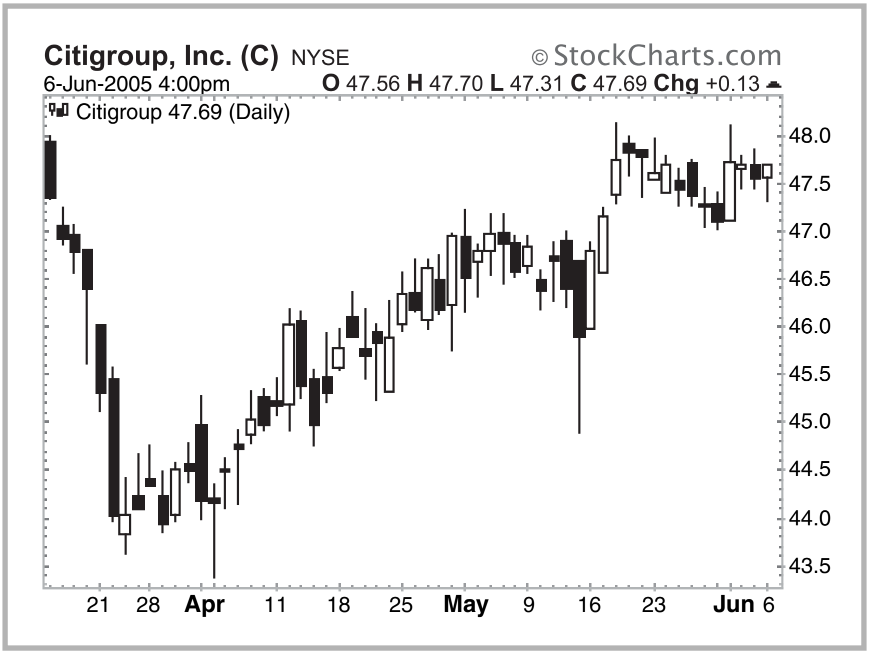



Figure 10-10

behavior at those levels can help to recognize similar behavior the next time those levels are reached. Historically consistent trading patterns may add confidence to trades, and here again candlesticks excel, as they are the most studied tool for reading trading behavior at reversal points.

## Playing News

News is a factor in trading; whether scheduled or a surprise, it can interrupt and distort existing price action. The reaction to the news can be gradual, violent, or nonexistent, but the market sentiment will be spelled out by the subsequent candle patterns. If the news supports the direction of the current move, it tends to move the price faster toward where it was going anyway, sometimes overnight. Big candle bodies indicate strong sentiment among the traders, and small bodies mean lack of follow-through. Long tails express volatile, even violent contention over the direction, and small tails reveal consensus or lack of interest.

News often produces big days (reaction or statement days). If a big day (or two) moves in the direction of the current trend, a very significant candle pattern may be forming. The Rising and Falling Three Method continuation patterns start with a large day (or two) in the direction of the trend and are followed by two to four testing days as traders probe to find out how strong the news really was (See Figure 10-11). If the direction of the trend (up or down) then continues, the sentiment is verified.

News can also be very fickle. Market sentiment can cause a $5 piece of news to get a $2 reaction one day and a $9 reaction the next. Big news can be neutralized by an opposing market trend, and minor news can get a big response out of a bored market. News happening at support and resistance points can influence the potential reversal, so traders should pay some attention as the news may trigger or exagger-

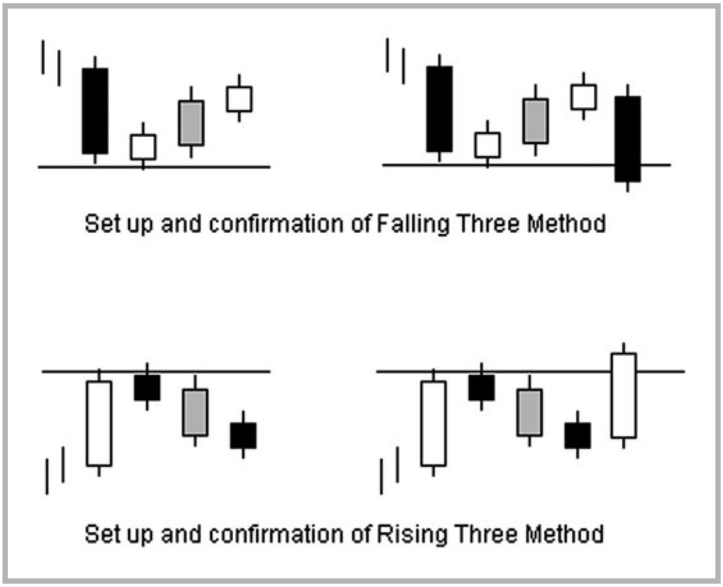



Figure 10-11

ate a reversal or continuation. Candle signals can also reveal the sentiment of the traders as a stock runs up or pulls back ahead of a pending news release.

While it is important to understand the effects of news on patterns, traders must focus on the pattern and the candle signals, and not a lot on the news itself.

## Technical Indicators

There are a myriad of technical indicators available to traders, and regardless of which indicators are used, blending them with candlesticks and good charting skills can produce a more in-depth picture of the price action. For example, a stock may be approaching a support level defined by a trend line or moving average. The candlesticks signal a loss of momentum and reversal. The technical indicators show an oversold condition. Considered together, full confirmation from the various "consultants" (each with their own special perspective) helps to trade with greater confidence.

One *word of caution:* Candles are trumped by the actual price action, and good traders remember they are trading the stock, not the indicators. They choose their indicators ("consultants") carefully and never take them too seriously. Indicators monitor and reflect behavior; they do not dictate it. Indicators are the sight, not the trigger.

So, returning to the premise, are candlesticks needed to trade well? No, so the question is, why learn to trade with candlesticks? The answer is that trading can be much better with them.

## Integration—East and West

Western Line Charts may point out a great chart pattern with clear support and resistance, but they do not show what is going on behind the scenes. Western Bar Charts show the intraday movement of the stock, but they are very difficult to interpret at a glance (see Figure 10-12). Candlesticks give quicker and more intuitive feedback to a

**Figure 10-12**

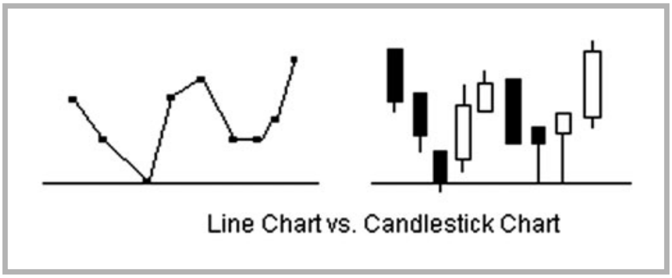



Figure 10-13

trader, and 200 years of collective experience and study simply make them better tools.

Japanese candlesticks will never replace Western chart patterns, but the strength and advantages of both make their combination superior to either used separately. The key to making the most of the blend is playing to their respective strengths. Japanese candles will never pick out and highlight a double bottom bounce off support, but they can reflect the bullish or bearish attitude of the traders (see Figure 10-13).

The best of Eastern and Western charting skills truly enhance a trader's ability to read the sentiment, emotion, and momentum at major pivot points, and react appropriately to it. Put another way, the Western charting shows the customers entering the deli and the Japanese candlesticks show how hungry they are.


Figure 10-14

## SUMMARY—EAST-WEST SYNERGY

- Candles are the most tested and studied form of technical analysis.
- Western pattern charting adds a viable and valuable dimension that enhances candlestick charting.
- Candles apply differently to investing and trading.
- The motives and dynamics of price and pattern development help to interpret candles' messages.
- The level of cohesiveness among the traders creates chart patterns that vary greatly, from predictable and consistent to choppy and dangerous. Be selective in choosing patterns to trade.
- Certain stocks throw distinctive patterns that reflect the behavior of that group of traders.
- News is a market reality and candles can reveal the traders' valuation of it.
- Technical indicators are enlightening and should be considered as advisory. They do not overrule the price action. This includes candlesticks. They predict; they do not guarantee.
- Western charts highlight crucial locations and Japanese Candlesticks reveal the attitude and sentiment.

## LOCATION, LOCATION, LOCATION

The classic real-estate mantra of "location, location, location" has a perfectly legitimate application to candlestick charting analysis. The location of a single candle or pattern has a great deal to do with its relevance and therefore its accuracy. A couple of analogies will illustrate the principle well.

## Falling Leaves

In southern climates, leaves will periodically turn color and fall off throughout the year due to wind and weather, but it goes virtually unnoticed. In northern climates it is taken very seriously. In late September, the first sign of changing color and dropping leaves gets a great deal of attention. There is an expectation associated with late September that winter will arrive soon, and the clearest signal is the visual display of the leaves. Now the signal is not a guarantee that foul weather is here but recognition that it is September, and conditions are now ready for it to happen.

Candlestick signals and patterns are defined by the size of bodies, length of tails, and proximity to neighboring candles. Some require certain conditions like being in trends, but there are further refinements that will help traders interpret the importance of their signals.

Western pattern trading gives relevance to the location of a stock or index. A pattern of support and resistance has a built-in expectation of significant movement at certain price points due to the historical behavior of that stock or index. The reversal or continuation signals from candlesticks are therefore more valuable at a location already designated for debating the fate of the pattern. Patterns can be successfully traded without candlesticks, but the candlesticks unique ability to illuminate behavior at these key pivot points can be extremely valuable to a trader with a trained eye. Another analogy:

## Brake Lights

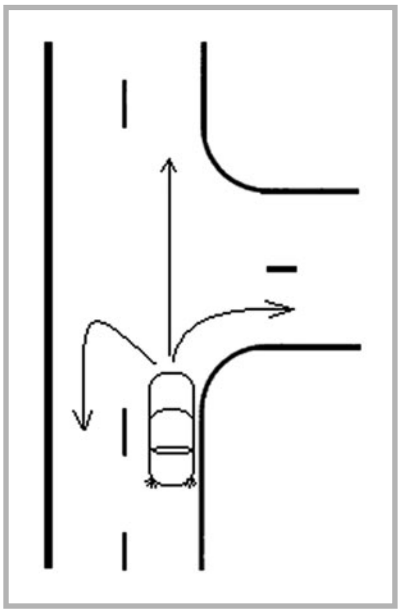
When brake lights come on there is a conditioned response based on past experience. When asked what brake lights mean, most people say someone is stopping. This statement illustrates the danger in assumptions. The fact is there are several reasonable answers.

In general, brake lights do mean stop; however, if brake lights are observed at 75 m.p.h. on the freeway, it most likely means the driver is simply adjusting the speed to the surrounding vehicles, not stopping. Could the brake lights on the freeway mean stopping? Of course, but that would be rare considering their location and circumstances.

Brake lights at 35 m.p.h. approaching an intersection most likely mean stop, but here again there are actually several things that could happen (see Figure 10-15). The driver may slow and then accelerate on through. He may stop and sit there for a while trying to decide what to do next. He may turn right or he may reverse and head the other way. Approaching the intersection, the implication that the car will stop is very strong, but what happens next is still a mystery.

A fundamental law of physics states that an object in motion tends to stay in motion, but it is also a fact that in order to reverse direction an object must come to a stop. Whether a stock will stay in motion or stop depends a lot on whether it is on the freeway or approaching an

**Figure 10-15**



intersection. Whether it will sit there, reverse, or continue will be revealed soon enough, but being at the intersection indicates a major decision will be made, which is also the most basic and important message of candlesticks. Does the message match the location?

A familiar caution goes "A little knowledge is a dangerous thing." Many traders experience frustration when an expected behavior from a candle pattern does not happen. A common mistake is neglecting qualifiers, like which direction the stock must be moving to properly identify the pattern. A perfect-looking Bullish Engulfing pattern may be in a location that nullifies the signal (see Figure 10-16). It may be

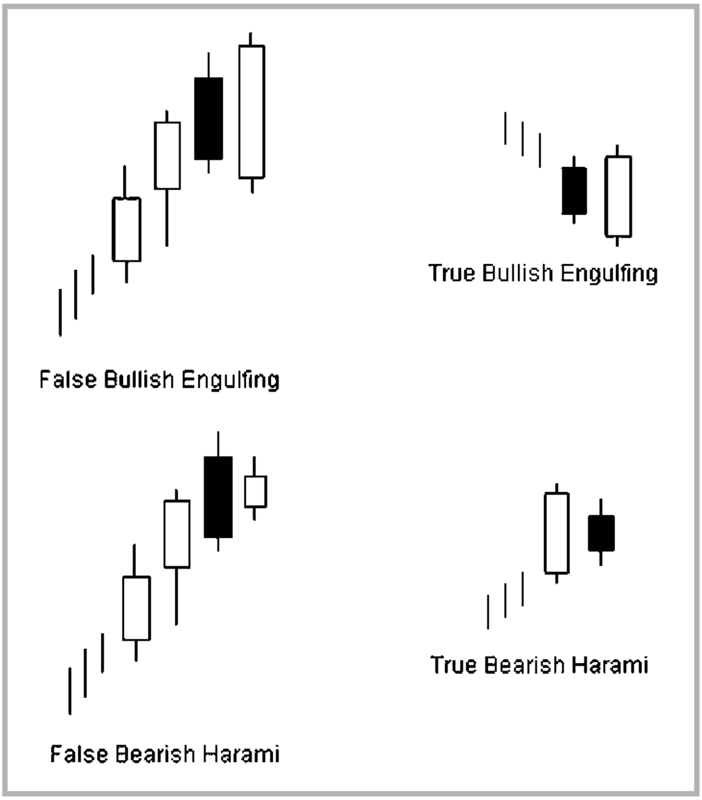



**Figure 10-16**

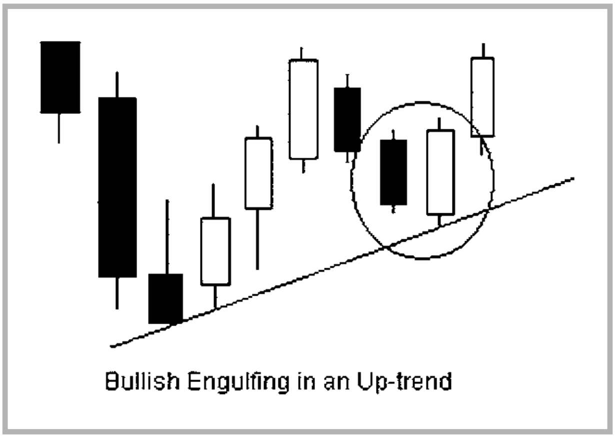
an Outside Day pattern, but if it is in an uptrend it will not be giving a bullish reversal signal.

Greg Morris puts it this way, "You can't have a bullish reversal in an uptrend." An uptrend, for the purpose of candlestick interpretation, is defined by a 10-day exponential moving average. A bullish reversal must start from below the 10-day moving average, and in an upswing it will be above the average, so a bullish reversal is not possible.

In an uptrend or downtrend with cycles, bullish and bearish reversals may occur at retracements that seem to contradict the statement above (see Figure 10-17). This is a technical exception, and other important concepts for understanding how to use candlesticks when playing trends are discussed later in this chapter. The message is what is important; if it is not technically a bullish reversal signal, the location frames the context to interpret the message, and it is still bullish.

Many one-day candles are misnamed and misunderstood, but what really counts is the message and location. A Hammer and a Hanging Man pattern are often mistaken for each other. Other than

**Figure 10-17**



location, they have identical rules; even the acceptable variations are the same. The basic message is indecision and the only difference is location (see Figure 10-18). The Hammer and Hanging Man patterns say the directional pressure and momentum have come to a stop and the long tail indicates it was not a consensus. The Hammer indicates an attempt to keep the momentum going, but a change in sentiment abruptly reversed the momentum by the end of the day. The Hanging Man suggests a mugging. No further trend movement; rather a solid reversal that was rebuffed, but it took the whole day's effort just to get back near the start of the day. Both suggest a reversal because the opposition made a very significant show of force at a known pivot point, but the net result is that momentum came to a stop.

Hammer and Hanging Man patterns often happen away from support and resistance levels without accompanying reversals. A hesitation or retracement is normal in a bullish or bearish move, and away from support or resistance, the Hammer and or Hanging Man still mean hesitation and indecision, but it is more like the brake lights on the freeway, slowing not stopping.

While getting the name right is less important than getting the message right, getting the message right in the right location trumps everything. Misreading brake lights can be confusing, frustrating, and downright dangerous. Misreading candles can be confusing, frustrating, and downright expensive.

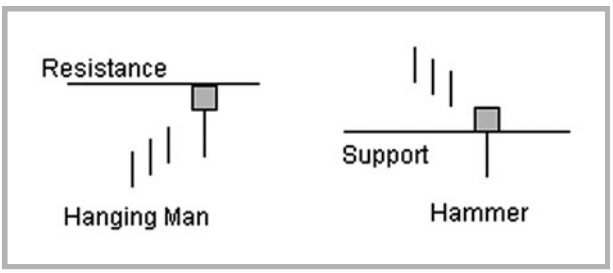



**Figure 10-18**

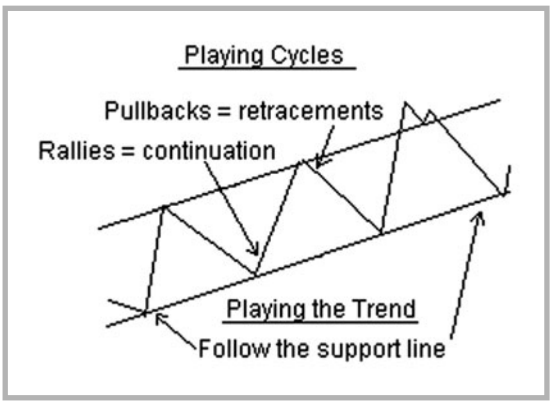
From a purely statistical perspective the majority of candles fall between 40–60% in accuracy, a rather ambiguous range. But this range includes all the occurrences, whether on the freeway or at an intersection. Taken in context (i.e., location) the interpretation changes and whatever the signal, it takes on greater significance if it is happening at an obvious support and or resistance level.

## Reversal or Retracement

A retracement is a pause or rest in a directional move, while a reversal spells the end of the directional move. The interpretation of candlesticks will vary depending on whether a trader is trying to follow a trend or play the cycles of the trend. Playing the trend means ignoring the retracements, while playing the cycles of the trend means changing positions at the swing points of the pattern (see Figure 10-19).

Reversal signals must accompany the cyclical swings of a trend, so correctly using candles to confirm the end of a trend is especially important to the trend-following trader. In an uptrend (and this applies reciprocally for downtrends), the bearish reversal signals will come at the top of a cycle when the trend looks very healthy, but

**Figure 10-19**



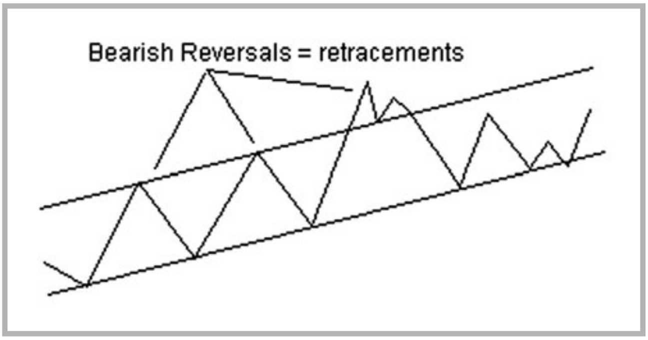



**Figure 10-20**

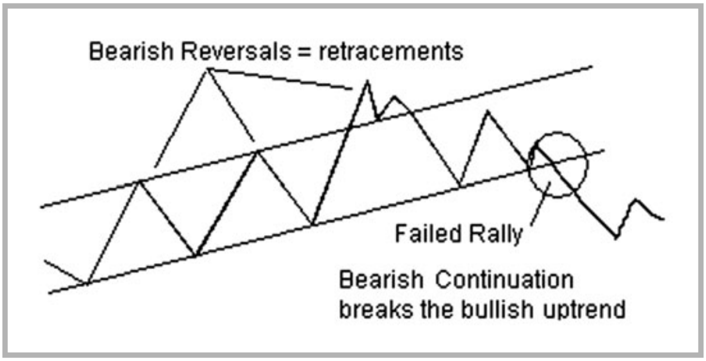
what does the signal mean? Is it the end of the trend or the start of a retracement? The end of the trend is actually signaled when the bottom of a cycle fails to rally up, so the reversal patterns at the top of a cycle must be seen as retracements or setbacks, not reversals. The trend is still intact until the support level is broken (see Figure 10-20).

## Bullish Trends Depend on Bullish Reversals

The uptrend will continue only if it survives challenges to the support levels, which will be signaled by bullish reversal patterns. The irony to the trend-playing trader is that the signals that say the bullish uptrend is over will not be bearish reversal signals at resistance. The end of a bullish uptrend will most likely be a continuation signal (a failed bullish rally) that pushes down through support. (See Figure 10-21.)

It is mandatory then to know where a signal is happening because its relevance depends greatly on its location. Following an uptrend requires knowing where to read bearish continuation signals and bullish reversals. Will the buyers support another run to the upside or is the bullish sentiment weak enough to warrant pushing the price down to test for buyers? This is the pivotal part of following a trend

Figure 10-21




and the irony is that at support, reversal signals preserve the uptrend and continuation signals end it.

## Playing the Cycles of a Trend

Playing the cycles of a trend with candlesticks requires knowing the pattern of support and resistance and the reversal and continuation patterns that may happen there. At resistance, bearish reversal signals will close bullish trades and open bearish positions for the retracement. When at resistance, continuation patterns can signal breakouts. At support, reversal patterns signal a resumption of the trend and continuation signals may spell the trend break (see Figure 10-22).

Unlike a technical indicator that can be scaled to fit different time frames, candle signals are one to five days long and they predict only a few days ahead. As a result, width of the pattern cycle is important. Some candlestick patterns require that the stock be in an uptrend and while it has been correctly stated that “You can’t have a bullish reversal pattern in an uptrend,” this is a technical exception. A bullish uptrend that takes many days to cycle from support to resistance is essentially made up of mini uptrends and retracements that preserve a bullish pattern. Each leg of the trend may be long enough for legitimate bullish and bearish reversals (see Figure 10-23).

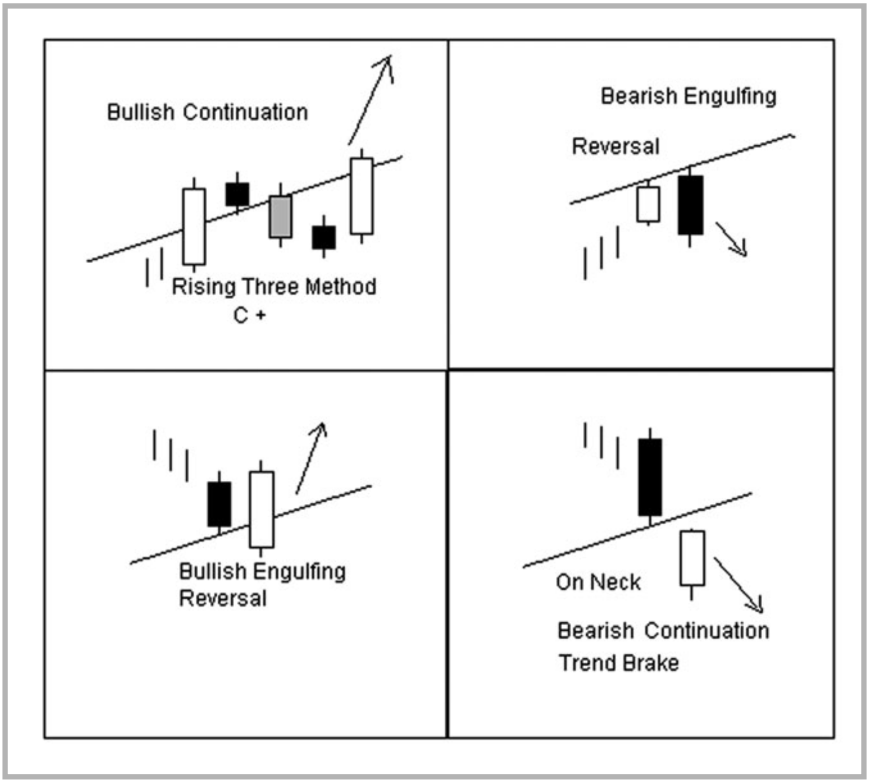
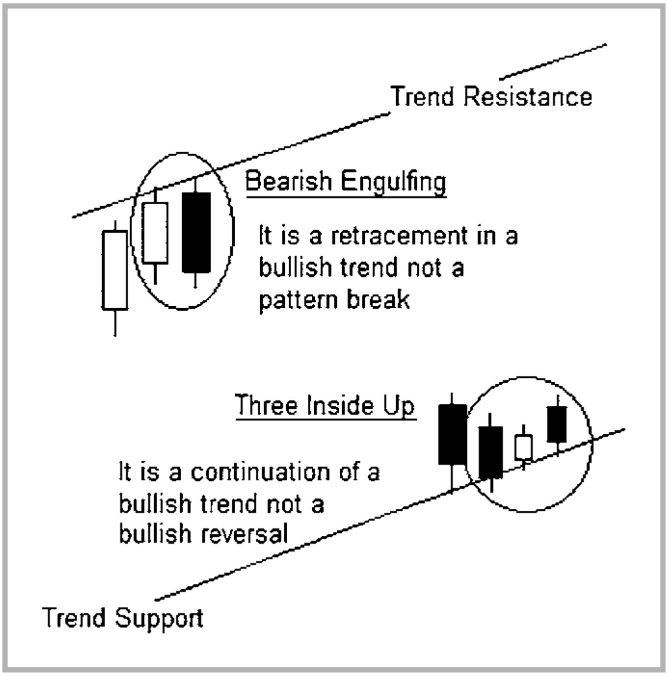



**Figure 10-22**

## Summary for Location, Location, Location

- Candlesticks have the most studied and practiced interpretive skills of any charting methodology. Two hundred plus years of study and use trumps Western bar charts in a big way, but the candle patterns are shortsighted.
- Western pattern charting gives relevance to the location of candlestick patterns. Brake lights on the freeway do not mean the same thing as brake lights at an intersection.
- Accuracy percentages are aggregate for all occurrences, but location can reduce or enhance accuracy.

**Figure 10-23**




- Trends are made up of retracements. At support, reversal patterns keep a trend going while continuation patterns can end it.
- Playing a trend is different than playing the cycles of a trend. Playing the trend follows the trend direction by watching for a retracement to continue down through support. Playing the cycles of a trend will require looking for reversals at support and resistance to keep the trend going.
- The length of the cycle determines whether it is appropriate to use reversal patterns.
- The Western Pattern Charts do a great job of showing the potential homebuyers arriving at the Open House, the Japanese Candlesticks can signal how anxious they are to buy.

## THE MESSAGE

### What's in a Name?

There are five different species of skunk in North America: the Striped Skunk, Eastern Spotted Skunk, Western Spotted Skunk, Hog-nose Skunk, and the Hooded Skunk. They all do the same thing when they are surprised or feel threatened. So if a hiker happens upon a small, white-striped black mammal that spins its business end around it is not the time to pause and wonder if it is a Western or Eastern Spotted. It does not matter which species, the message is same for all of the skunks: *run!*

Likewise, there are a lot of candlestick patterns and many are variations on common messages. Hesitation signals have many names, but it is more important to recognize the message than remember the name. When it gets right down to it there is far too much emphasis placed on the proper name recognition and not enough on really knowing the implications of the candlestick message.

Daunting tasks tend to discourage folks, and memorizing the names, variations, and rules for 80+ candlestick patterns and signals is a daunting task. Fortunately that level of memorizing is not required to gain functional skills in the use of candlesticks. This chapter will give some rules and tools to help simplify and speed the quest for proficiency. This foundation will also expand candlestick knowledge and skills over time.

### What's a Good One?

Read a book, visit a Web site, pop into a chat room about candlesticks and someone will ask the question "What's a really good reversal pattern?" A good one? Consider the ambiguity of the question. What does good mean? They may be justified in wanting someone to save them a lot of time by listing the best three or four patterns, but it is a bad question. What do they want to know, the best reversal or continuation patterns, and what do they mean by good, and how good is good enough?

A so called "good one" may be significantly enhanced or diminished depending on its location because reversal signals predict better at support or resistance levels. Every pattern or signal has a message because it describes varied behavior.

"Good ones" can also be underappreciated if taken out of context; redefining what a "good one" is will enhance the ability to read and place the message in perspective, and having sound accuracy data may change many traditional views on which patterns are "good ones."

The first step is recognizing the candlestick message and then weighing its relevance and significance by the location.

## Short Days

A small, tiny, or no body day, like a Hammer or a Doji, has a very specific message. In tests using millions of days of data, the Doji as well as small and tiny body patterns showed accuracy rates of 50% (+/–). 50% is not very impressive, but those small days are 100% accurate at predicting indecision. A lack of momentum or news can cause consolidation and confusion, and small bodies show either a volatile or apathetic lack of momentum (see Figure 10-24). Because every reversal has to lose traction and stop before it changes direction, turns are either decisive or deliberated. The deliberation is often punctuated by an indecisive day or two.

If the stock loses traction at a pivot point, whether the stock moves up or down is less important than the fact that the trade has lost traction at a significant price. The traders know where they are and are trying to determine the sentiment of the market. The ubiquitous

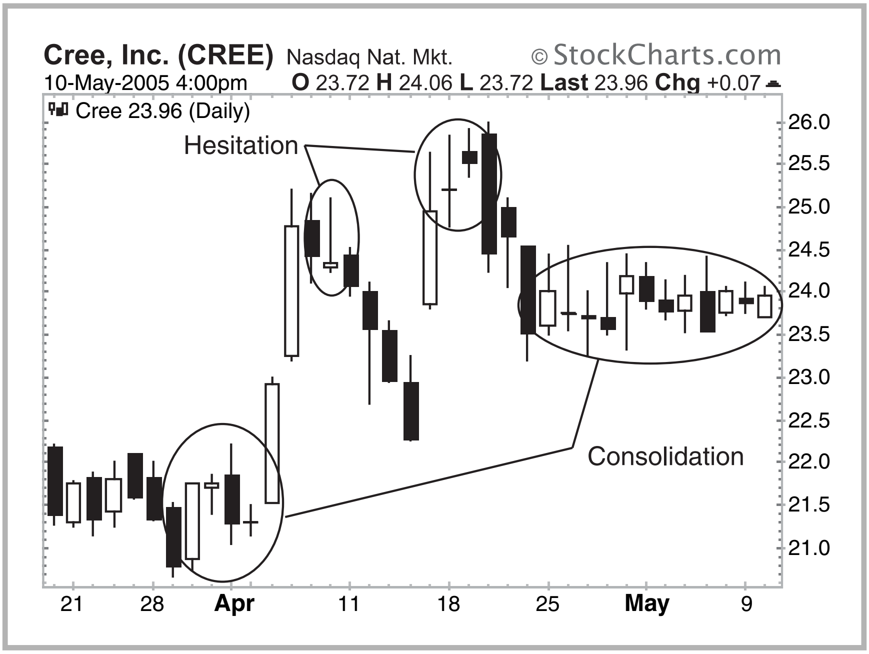



**Figure 10-24**

50/50 indecision signal is doing exactly what it is supposed to do, and at support or resistance, it can be a million-watt beacon (see Figure 10-25).

If the indecision at a pivot point is followed by a continuation breakout, the small body would have failed to predict a reversal but succeeded with honors at predicting where to set up for a trade (see Figure 10-26). The indecisive message was clear and relevant. Whichever direction is taken after the hesitation is significant and underscores the need for a trader to be neutral and flexible.

## Long Days

Long Days are one-day patterns with large bodies as opposed to a long tails or shadows. Many hopes for a good trade have been

Figure 10-25

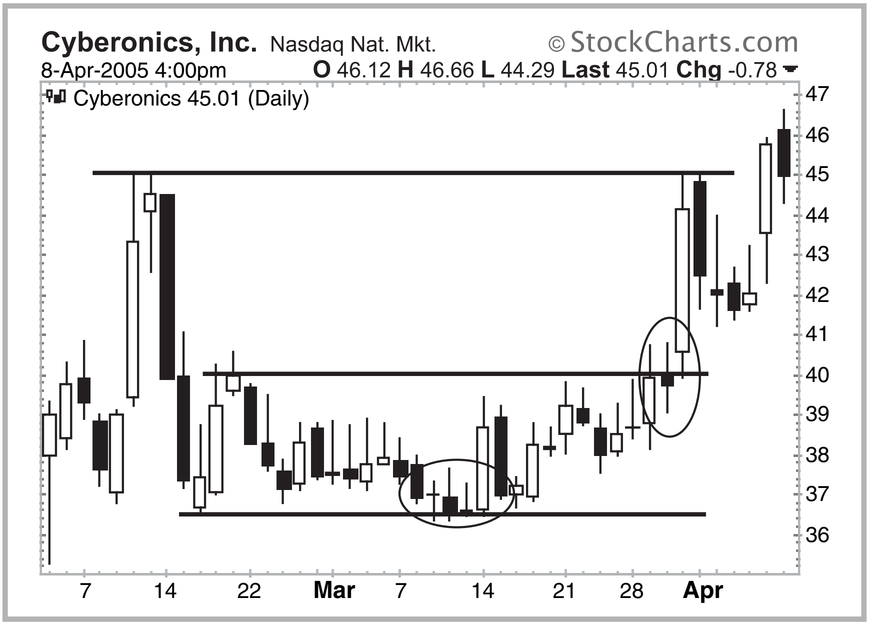
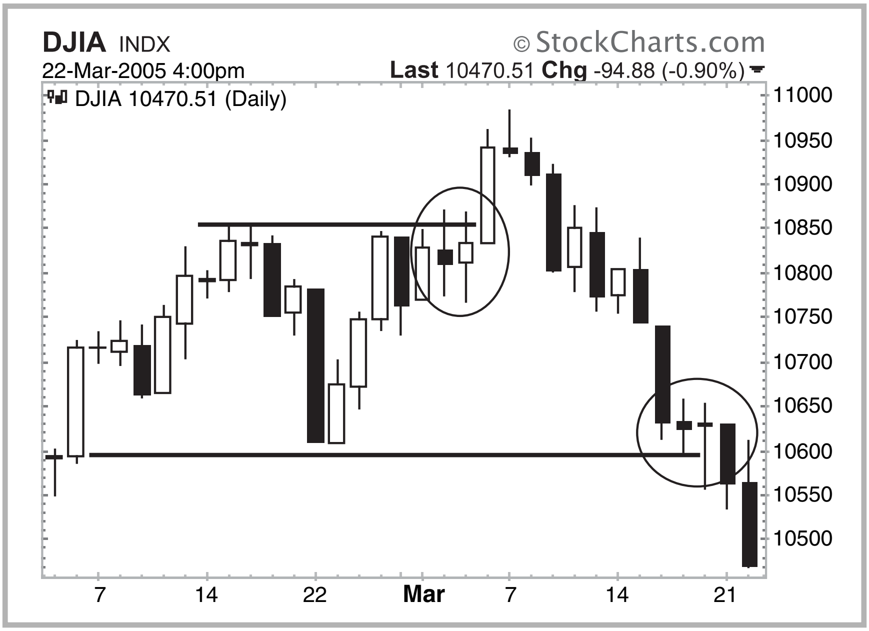



Figure 10-26



dashed by misunderstanding the message of these Long Days. It may seem obvious that a Long Day should give a very bullish or very bearish signal but what follows often catches traders off guard.

The message is strong, but Long Days invite challenges like a new kid on the playground. It is very common to see two to four days of testing and challenge after a Long Day. The Rising and Falling Three Method continuation patterns are formed when the direction resumes after an unsuccessful challenge to a Long Day (see Figures 10-27 and 10-28). A Long Day in the direction of a trend is a good signal, but the message includes a warning about getting too close with stops.

### *Trading Tip*

If the trader is to follow the trend, it may be necessary to leave the gains of the Long Day exposed until the trend resumes. New traders often move in to protect profits, and get bounced, only to see the trend continue. Most traders do not have the experience or courage to jump back in and often watch on the sidelines, feeling betrayed, as the trend moves on without them. The message did not betray them; in fact the message was clear and correct, but a lack of candlestick knowledge and natural market behavior drew them too close to the flame.

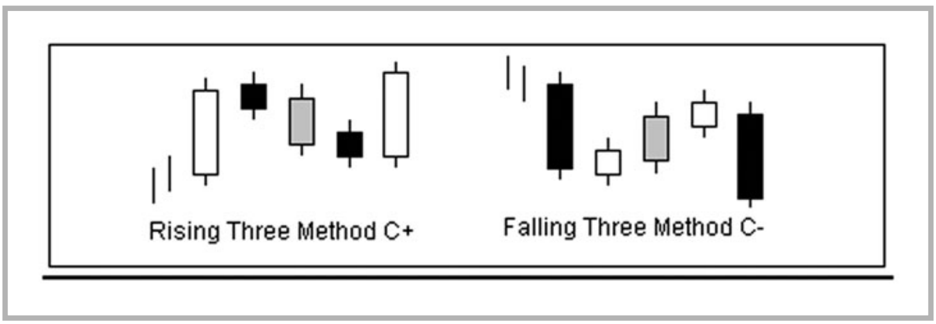
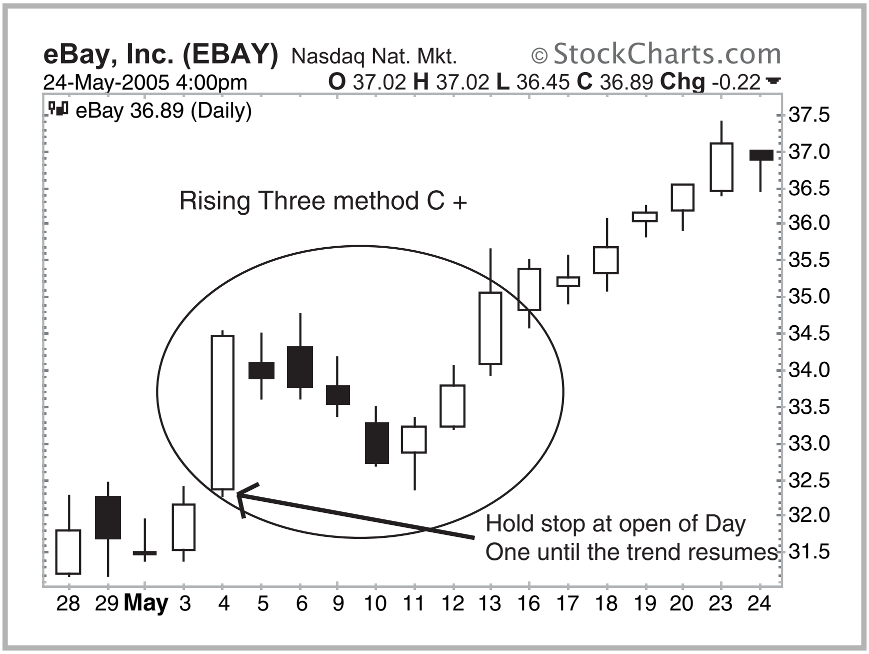



**Figure 10-27**

Figure 10-28




Note that the Rising and Falling Three method patterns are 50% accurate, which means that location may play a large part in strategy. If day one moves to a pivot point or price target, the trader may do well to jamb the stop in tight because waiting for a few days with just a 50% chance it will continue is a threat to a target already reached. If a long body candle moves in favor of the trade, but is not near the target, it makes sense to hang back at the open of day one to see if the momentum continues.

## More Complex Patterns

Often it takes more than one day to form a consensus among the traders and the market. A four- to six-day pattern indicates it took the traders a while to reach a consensus of market sentiment. Each

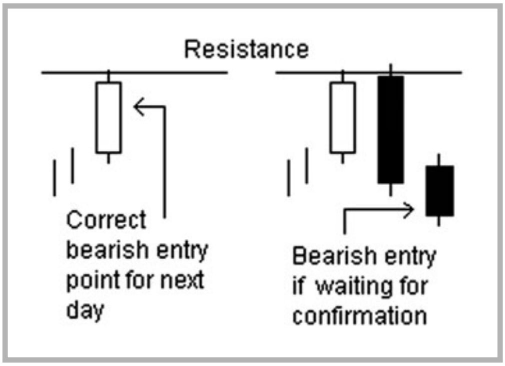



**Figure 10-29**

day is a separate message, and by the time the pattern is completed the reversal may be well underway. The trader trying to read each day while waiting for the pattern to confirm may find the ideal entry happened several days before (see Figure 10-29). The correct entry is signaled as the stock moves away from support or resistance level. When the complex pattern completes, it gives good confirmation to a trade that should have already been entered. Confirmation is great, but it is not necessary to wait for a complex pattern to complete before entering a trade.

### *Trading Tip*

An entry point that is clear but not confirmed can be entered by taking a small position and adding when and if confirmation occurs. If the move is a "Head Fake" it has little consequence and the correct trade can then be made.

## Accuracy versus Frequency (Surprises)

The more complex patterns have generally been thought to be more accurate, and some research supports that premise when they are observed at specific support and resistance areas, but the data runs by Greg Morris, elsewhere in this book, have yielded some profound revelations. Some of the simpler patterns have some of the highest accuracy ratings. Some of the complex patterns may be more accurate but they are also much less frequent, so most reversals will be associated with the simpler one- to three-day patterns. Therefore the simpler, more frequent candle patterns will be the dominant reversal signals in most trades (see Figure 10-30).

**Figure 10-30**

| # Days | Most Frequent | | # Days | Most Accurate | |
|---|---|---|---|---|---|
| 2 | Harami – | R– | 3 | Gap 2 Rabbits + | R+ |
| 2 | Harami + | R+ | 1 | Hanging Man – | R– |
| 2 | Engulfing – | R– | 2 | Match. High – | R– |
| 2 | Engulfing + | R+ | 2 | Match. Low + | R+ |
| 1 | Hanging Man – | R– | 1 | Inv. Hammer + | R+ |
| 1 | Hammer + | R+ | 3 | Stick Sand. + | R+ |
| 1 | Har. Cross – | R– | 3 | Gap 3 Meth. + | C+ |
| 2 | 1 Wht Soldier + | R+ | 3 | 3 Line Strike + | C+ |
| 2 | Har. Cross + | R+ | 2 | Hom. Pigeon + | R+ |
| 1 | Doji Star - | R- | 3 | Deliberation - | R- |

Finding a stock at a pivot point and correctly reading the candlestick message is what really counts. The accuracy rating and characteristics of the pattern are valuable, but the crux of the matter is established by the location. Some may be disappointed, but accuracy is not quite as important as it may have once seemed, which lessens the urgency to find the "Good Ones."

## Direction of the Tails

One very fascinating correlation that has emerged from the new data runs in this book involves four very familiar and similar candles. The

Hammer, Hanging Man, Shooting Star, Inverted Hammer, and their cousins (Umbrellas and Long Legged Doji) have traditionally shared roughly equal value in predicting reversals. The Hammer and Hanging Man are particularly popular and many books and Web sites treat them as "good ones." However, like many stereotypes, assumptions about these candles wither under recent scrutiny, and when they are properly analyzed and compared, an intriguing relationship shows up.

Long-tailed patterns either point in the direction of, or the reverse of, a trend, and the millions of days that were scanned for this database reveal that the direction of the tails has a strong correlation to the accuracy of the reversal signals they predict (see Figure 10-31).

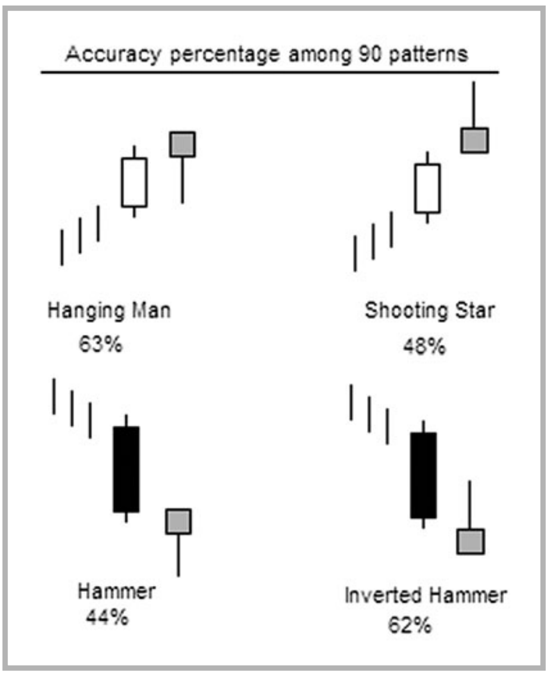



**Figure 10-31**

The Hanging Man and the Inverted Hammer have substantially higher (63% and 62%) accuracy percentages than the Hammer and Shooting Star (44% and 48%). Far from the assumption that small-bodied, long-tailed candles were very comparable, the Hanging Man and Inverted Hammer had a 19- and 14-point advantage respectively. It is a fair conclusion that in small body patterns, the body size has much less to do with accuracy of the reversal than the tail. Small bodies, tiny bodies, and Dojis should yield similar results to Figure 10-32 if they have long tails and are in similar positions.

Note that the percentages used are the average of each pattern's accuracy over one through seven days of follow-through, therefore the percentages for comparing patterns is not supposed to add up to 100%.

The message is profound. Of these "good ones," the venerable Hammer pattern rests just four places off the bottom of 90 patterns tested, while the Hanging Man stands at number two in the accuracy ratings. The direction of the long tail substantially influences the probability of a reversal.

The frequency ratio also provides an interesting side note. The bearish reversal Hanging Man (accuracy winner), occurred 30 times more often than it's companion bearish reversal the Shooting Star. The bullish reversal Hammer (accuracy loser) occurred five times more often than the bullish reversal Inverted Hammer. Thus, there will likely be more Hammers at support, and more Hanging Man patterns at resistance, but equal weighting can no longer be a given (see Figure 10-32). So at resistance, the more frequent Hanging Man is much more accurate than the Shooting Star and at support, the more frequent Hammer is far less accurate than the Inverted Hammer. All that said, remember the influence of location. There are a lot of Hammers, and cursory observations suggest a much higher accuracy at pivot points.

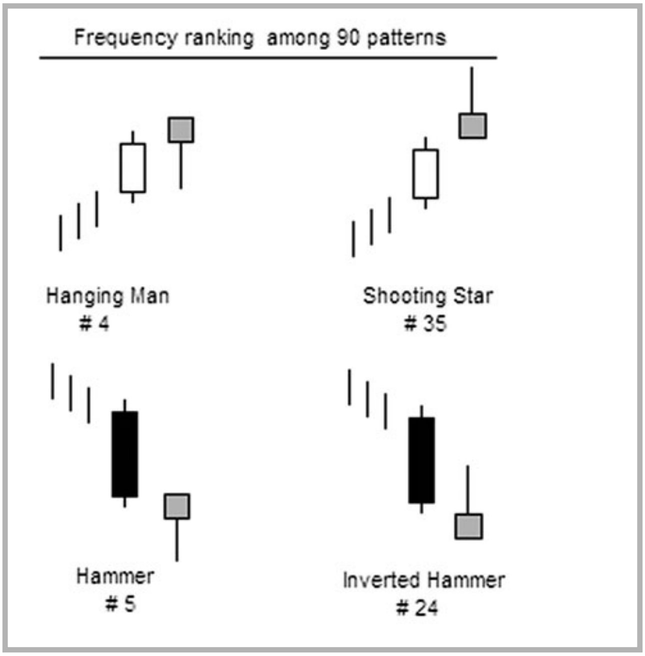



**Figure 10-32**

## Reciprocals

A reciprocal has the opposite construction and message, and the vast majority of candle patterns have reciprocal patterns with opposite messages (see Figure 10-33). Most reciprocal patterns have very similar accuracy percentages, but there are several exceptions that traders need to be aware of.

In the prior discussion, the bearish reversal Hanging Man showed a substantial 19-point (63% to 44%) advantage over the bullish reversal Hammer, but the reciprocal of the Hanging Man is the Inverted Hammer, not the Hammer. The Hanging Man and Hammer were compared because they are so widely associated with reversals and happen at both support and resistance. They are clones, not reciprocals, and the big discrepancy in accuracy is surprising, but the

Figure 10-33

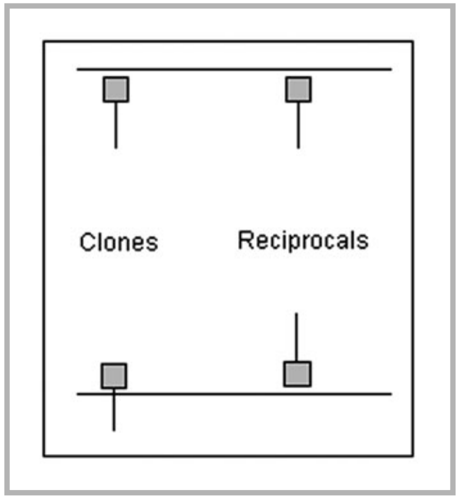



Figure 10-34

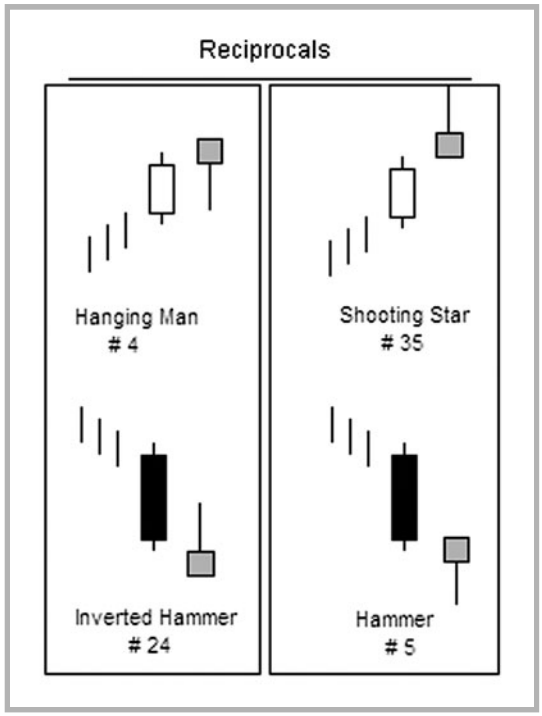


**Figure 10-35**

**Greater than 5%**

7 reciprocal patterns

| | |
|---|---|
| 3 Dn Gap Up + | 52% |
| 3 Up Gap Dn – | 41% |
| 3 Stars North – | 45% |
| 3 Stars South + | 53% |
| Advance Block – | 47% |
| Desc. Block + | 52% |
| Gap 2 Crows – | 45% |
| Gap 2 Rabbits + | 64% |
| Gap 3 Meth. + | 55% |
| Gap 3 Meth. – | 49% |
| Two Crows – | 46% |
| Two Rabbits + | 52% |
| Uniq. 3 River + | 49% |
| Unique 3 Mtn – | 43% |

Exactly the same
3 reciprocal patterns

| | |
|---|---|
| Falling 3 M – | 50% |
| Rising 3 M + | 50% |
| Meeting Lines + | 49% |
| Meeting Lines – | 49% |
| Squeeze Alert + | 52% |
| Squeeze Alert – | 52% |

**1 to 4%**

34 reciprocal patterns

| | | | |
|---|---|---|---|
| 1 Black Crow – | 46% | Har. Cross + | 52% |
| 1 Wht Soldier + | 49% | Har. Cross – | 50% |
| 3 Black Crows – | 48% | Harami + | 51% |
| 3 Wh Soldiers + | 52% | Harami – | 49% |
| 3 Gap Downs + | 51% | 3 Inside Up + | 50% |
| 3 Gap Ups – | 52% | 3 Inside Dn – | 47% |
| 3 Line Strike + | 55% | In Neck Line + | 44% |
| 3 Line Strike – | 52% | In Neck Line – | 46% |
| Aban. Baby + | 52% | Hammer + | 44% |
| Aban. Baby – | 50% | Shooting Star – | 48% |
| Belt Hold + | 51% | Kicking + | 44% |
| Belt Hold – | 47% | Kicking – | 41% |
| Breakaway + | 53% | Ladder Bot. + | 53% |
| Breakaway – | 52% | Ladder Top – | 50% |
| Deliberation + | 54% | Mat Hold + | 51% |
| Deliberation – | 52% | Mat Hold – | 48% |
| Desc. Hawk – | 53% | Match. High – | 63% |
| Hom. Pigeon + | 54% | Match. Low + | 62% |
| Dk Cld Cover – | 47% | Evening Star – | 45% |
| Piercing Line + | 49% | Morning Star + | 46% |
| Doji Star + | 54% | On Neck Line + | 49% |
| Doji Star – | 52% | On Neck Line – | 51% |
| Downside TG – | 51% | Sep. Lines + | 46% |
| Upside TG + | 50% | Sep. Lines – | 43% |
| 3 Outside Up + | 49% | Stick Sand. + | 58% |
| 3 Outside Dn – | 46% | Stick Sand. – | 54% |
| Engulfing + | 46% | SxS Blk L + | 50% |
| Engulfing – | 45% | SxS Blk L – | 46% |
| Even. D Star – | 49% | SxS Wht L + | 48% |
| Morn. D Star + | 48% | SxS Wht L – | 46% |
| Inv. Hammer + | 62% | Thrusting + | 53% |
| Hanging Man – | 63% | Thrusting – | 52% |
| | | Tri Star + | 47% |
| | | Tri Star – | 46% |

Hanging Man actually compares very favorably with its reciprocal the Inverted Hammer, and the Hammer compares nicely with its reciprocal the Shooting Star (see Figure 10-34).

Some 90 patterns were tested, of which 88 were generated from 44 reciprocal pairs. Only seven reciprocal patterns had five or more points discrepancy in the accuracy percentages. Thirty-four varied by four or less points and three were exactly equal (See Figure 10-35).

Seven out of seven big discrepancy (more than 5%) patterns had much higher bullish accuracy percentages than bearish (see Figure 10-36). This was a surprise advantage to the bullish patterns.

**Figure 10-36**
**Greater than 5% Discrepancy**

**7 Reciprocol Patterns**

| | |
|---|---|
| 3 Dn Gap Up + | 52% |
| 3 Up Gap Dn – | 41% |
| | |
| 3 Stars North – | 45% |
| 3 Stars South + | 53% |
| | |
| Advance Block – | 47% |
| Desc. Block + | 52% |
| | |
| Gap 2 Crows – | 45% |
| Gap 2 Rabbits + | 64% |
| | |
| Gap 3 Meth. + | 55% |
| Gap 3 Meth. – | 49% |
| | |
| Two Crows – | 46% |
| Two Rabbits + | 52% |
| | |
| Uniq. 3 River + | 49% |
| Unique 3 Mtn – | 43% |

In the past, there has been a subtle presumption that bearish reversal patterns had an edge based on the general perception that it is harder to push a price up than to drive it down. The data shows that 33 out of 44 pairs favored the bullish signals, eight favored the bearish signals, and three had the same percentage (Figure 10-37). Hard data suggest that bullish patterns outperform their bearish reciprocals in a big way, and 100% of the big accuracy discrepancy pairs favor the bullish reversals.

**Figure 10-37**

**Bullish Bias**

| | | | |
|---|---|---|---|
| 1 Black Crow – | 46% | Gap 3 Meth. + | 55% |
| 1 Wht Soldier + | 49% | Gap 3 Meth. – | 49% |
| 3 Black Crows – | 48% | Har. Cross + | 52% |
| 3 Wh Soldiers + | 52% | Har. Cross – | 50% |
| 3 Dn Gap Up + | 52% | Harami + | 51% |
| 3 Up Gap Dn – | 41% | Harami – | 49% |
| 3 Line Strike + | 55% | 3 Inside Up + | 50% |
| 3 Line Strike – | 52% | 3 Inside Dn – | 47% |
| 3 Stars North – | 45% | Kicking + | 44% |
| 3 Stars South + | 53% | Kicking – | 41% |
| Aban. Baby + | 52% | Ladder Bot. + | 53% |
| Aban. Baby – | 50% | Ladder Top – | 50% |
| Advance Block – | 47% | Mat Hold + | 51% |
| Desc. Block + | 52% | Mat Hold – | 48% |
| Belt Hold + | 51% | Evening Star – | 45% |
| Belt Hold – | 47% | Morning Star + | 46% |
| Breakaway + | 53% | Sep. Lines + | 46% |
| Breakaway – | 52% | Sep. Lines – | 43% |
| Deliberation + | 54% | Stick Sand. + | 58% |
| Deliberation – | 52% | Stick Sand. – | 54% |
| Desc. Hawk – | 53% | SxS Blk L + | 50% |
| Hom. Pigeon + | 54% | SxS Blk L – | 46% |
| Dk Cld Cover – | 47% | SxS Wht L + | 48% |
| Piercing Line + | 49% | SxS Wht L – | 46% |
| Doji Star + | 54% | Thrusting + | 53% |

**Bearish Bias**

| | |
|---|---|
| 3 Gap Downs + | 51% |
| 3 Gap Ups – | 52% |
| Downside TG – | 51% |
| Upside TG + | 50% |
| Even. D Star– | 49% |
| Morn. D Star+ | 48% |
| Inv. Hammer + | 62% |
| Hanging Man – | 63% |
| In Neck Line + | 44% |
| In Neck Line – | 46% |
| Hammer + | 44% |
| Shooting Star – | 48% |
| Match. High – | 63% |
| Match. Low + | 62% |
| On Neck Line+ | 49% |
| On Neck Line– | 51% |

**No Bias**

| | |
|---|---|
| Falling 3 M – | 50% |
| Rising 3 M + | 50% |

**Figure 10-37 (*Continued*)**

| Bullish Bias | | | | Bearish Bias | |
|---|---|---|---|---|---|
| Doji Star – | 52% | Thrusting – | 52% | Meeting Lines + | 49% |
| 3 Outside Up + | 49% | Tri Star + | 47% | Meeting Lines – | 49% |
| 3 Outside Dn – | 46% | Tri Star – | 46% | Squeeze Alert + | 52% |
| Engulfing + | 46% | Two Crows – | 46% | Squeeze Alert – | 52% |
| Engulfing – | 45% | Two Rabbits + | 52% | | |
| Falling 3 M – | 50% | Uniq. 3 River+ | 49% | | |
| Rising 3 M + | 50% | Unique 3 Mtn– | 43% | | |
| Gap 2 Crows – | 45% | | | | |
| Gap 2 Rabbits + | 64% | | | | |

## 50% Does Not Equal 50/50

The 50%+/– accuracy of simple candle patterns is augmented by the 100% indecision they suggest, but 50% does not equate to a 50/50 chance of reversal. It may appear that the accuracy numbers are huddled in an insignificant midrange and if there were only two directions a stock could go, it would be a fair observation. It is tempting to equate 50% with 50/50, but there are actually three directions a chart may go; up, down and sideways. This changes the picture a great deal (see Figure 10-38). If the signal is only about 50% accurate at predicting a reversal, the 50% chance it will not reverse is split between continuing and going sideways. Therefore the odds are greater that it will reverse than either go sideways or continue.

An options trader considering a spread (like a Bear Call Spread) hopes a stock will stay at or below a certain price to gain the maximum profit. The trade setup would be a stock stalling at a resistance level or threatening to drop through support. If the stock throws a

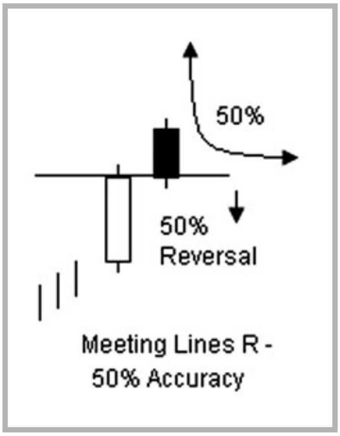



**Figure 10-38**

Doji, Hanging Man, Shooting star, Spinning Top, or some other indecision candle, the message is indecision and loss of traction at a pivot point. Now the accuracy rate for a simple reversal signal is about 50% (48% to 63%), but the odds that the spread trade will work are greater than that. Going sideways also works for the spread, so the 50% + reversal plus the chance it goes sideways (whatever percentage that is), makes it much greater than 50/50 that the Bear Call Spread will work favorably (see Figure 10-39).

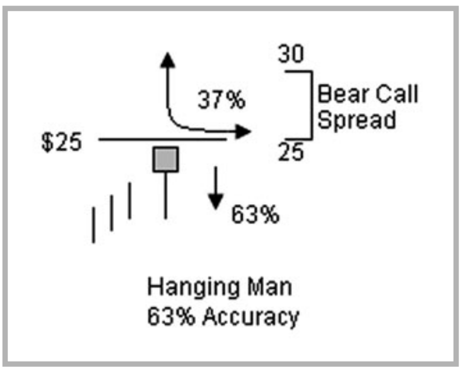



**Figure 10-39**

*Trading Tip*

The presence of indecisive signals at pivot points enhances the odds for some trades. The trader has a clear exit criteria defined by the resistance and the presence of the small body reversal signals. The trade has a much greater than 50% chance that an appropriate spread trade will work.

## Bodies and Tails/Priority and Message, Sentiment versus Volatility

The message of every pattern builds off the message of each day, which is made up of a body (difference between open and close), and tail/wick/shadow (the high and low). The bodies take priority over the tails for the first read when evaluating and interpreting the candle message.

The body signal represents the sentiment of the day, the overall disposition after the smoke clears. Was the body small, normal, or large? Was it bullish or bearish and if so how bullish or bearish? The final score of a game determines a winner or loser but the score does not always tell the story of the game (see composition, later in this chapter).

The tails represent the volatility of the day and confirm how hard it was to reach a consensus. Long tails can be news related or just lack of cohesion among the traders, but they suggest wide divergence of opinion and emotion. Shorter tails confirm and support the message of the body. Either way, tails increase or decrease the volatility of the day's action and reveal a lot about how the day's sentiment was reached (see Figures 10-40 and 10-41).

## Gaps

Gaps are pricing phenomena that need a brief mention. A true gap is a rare and significant event (see Figure 10-42) that often accompanies strong price moves. A gap can punctuate a reversal as it signals a

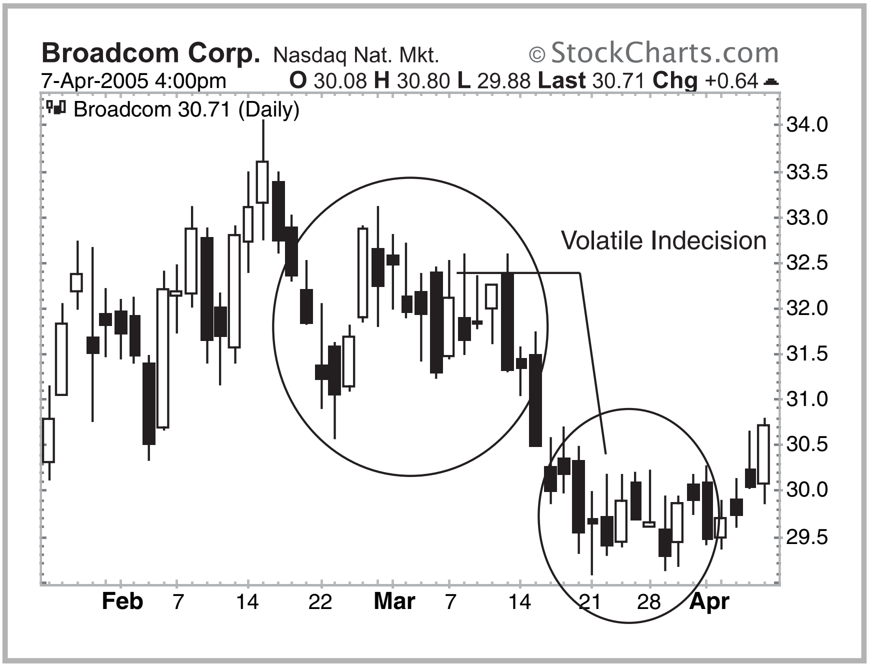



Figure 10-40

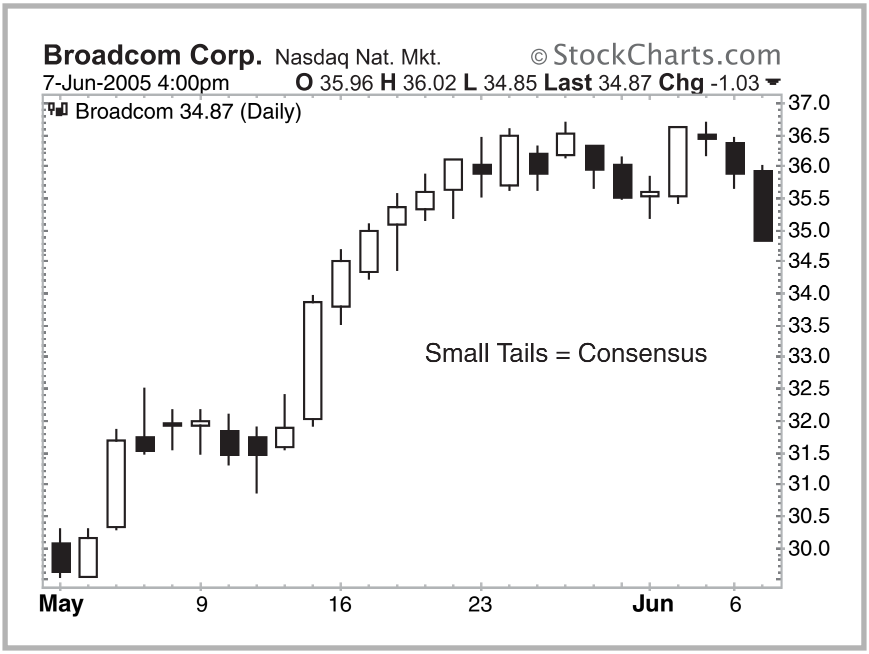
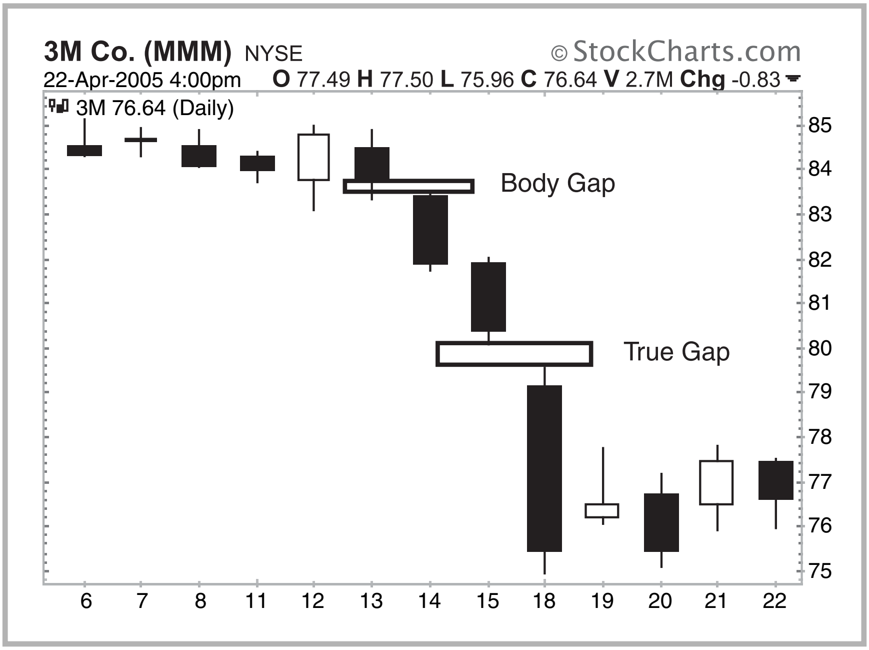



Figure 10-41

**Figure 10-42**




strong sentiment at a pivot point. While this section is not a thorough discussion of the Gap Theory, candles can be shown to help a great deal in reading the importance of a gap.

There are several gap patterns, but the underlying message of gaps is this:

1. A gap is a change of opinion about the price while the market has been closed. The opening price is higher or lower than the previous day's close.
2. The longer the gap stays open, the more significant it is.
3. Gaps happen a lot and only rarely are they still open at the end of the day.
4. How a gap is filled can help to read the sentiment of the market.

***Trading Tip***

Over 90% of gaps are filled by the end of the trading day. Therefore an opening gap will almost always fill, and how it fills is important. If the candle reaches back to fill the gap and then continues on the direction of the gap, the message is very confirming of the gap direction. If a gap trades back to fill, and closes near or inside the previous day, it is often a reversal signal (see Figure 10-43). The gap is a change in valuation, and how the traders react is key to understanding how significant the gap is.

The true gap is rare and often several days go by with out filling the gap. The most significant gaps can take weeks, months, and even years to fill. How a gap fills is important to candlestick traders; does the stock reach back intraday with a long tail and then reverse away like a child playing "Ring and Run" with a doorbell, or do they park

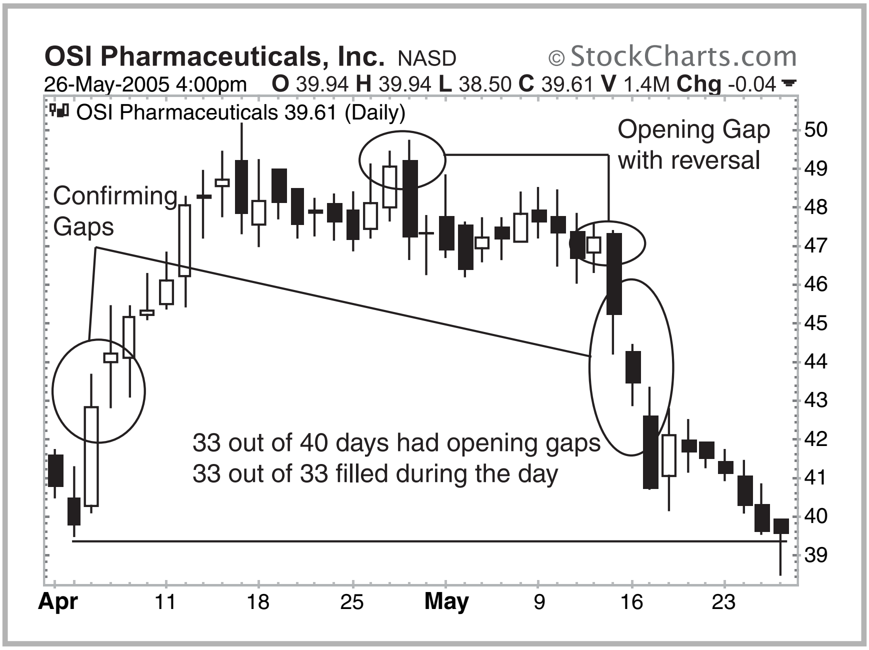



**Figure 10-43**

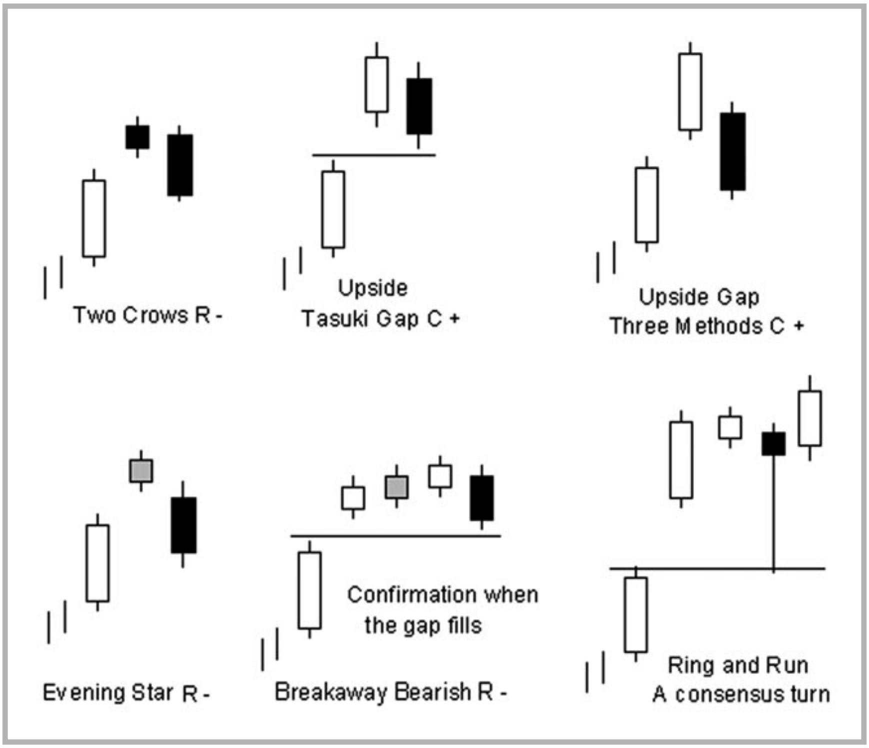
precisely at the gap and take off the next day? Do they arrive clumsily and or just plow on through (see Figure 10-44).

This behavior sends vital messages, and most gaps are treated like wrapping up loose ends. Knowing how the traders feel about a particular gap and how to read the message of the candles is the key to that advantage.

## Perspective

First of all, the message of each day must be understood or it is not possible to put blended signals together. Yes, patterns can be memo-

**Figure 10-44**



rized but the patterns do not have high enough accuracy rates to be traded alone. Location has been shown to enhance accuracy but it remains necessary to be flexible and neutral at pivot points. The candle signals will add weight and commitment to the trade, but they will not make the trade.

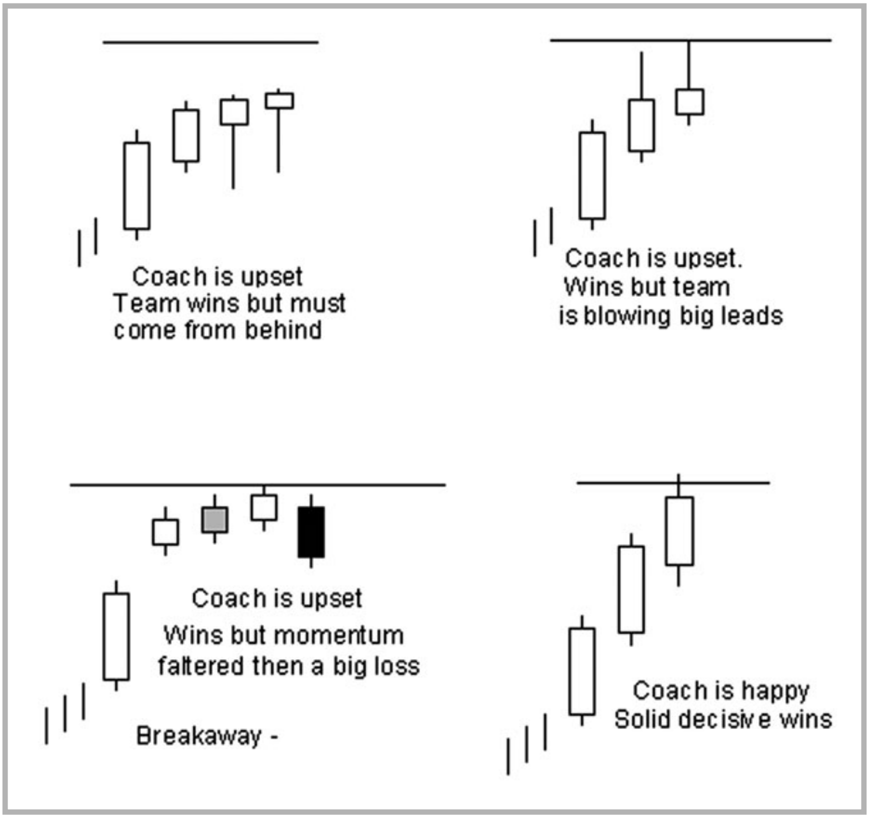
A stock or market movement reflects human nature, which at best is predictably fickle. Like reading a person's body language when they are asked to give a speech, one may look nervous or confident but that does not determine how effective the speech will be.

The approach to a support or resistance level must be looked at for what it is. Key traders are nudging the stock toward a significant price level, and a generic analogy may help to put "the message" in perspective.

A competitive team moves through a season toward the playoffs and hopefully the finals and a championship. The team is having a winning season and the margin of victory is solid each game. The coach is happy and confident. The candle bodies show a win (open bodies) or loss (closed body). Tails pointing down show how far behind the team got during the game and up tails show how much of a lead they gave up. Look at a few different approaches to the playoffs and try to understand how the coach feels (see Figure 10-45).

Although a win is a win, the coach does not see each approach the same way. The team may arrive having lost momentum or they may get there at the top of their game, and it does reflect how they may perform in the crucial playoffs. In the playoffs, only a few games can be lost and still advance. The team may get bumped out in the first round or hang on until the last game. They may win every game to jump ahead or have to fight to come from behind. Quick and decisive or slow and brutal, the sentiment will be reached and the team will either advance to the championship rounds or be sent packing (see Figure 10-46).

Figure 10-45




## Composition

Two hundred years of observation and study have produced candlestick patterns that describe tendencies and characteristics of price movement. That research must be respected and valued, but the importance of location and understanding the message gives further perspective and utility. One additional examination will further refine the use and interpretation of candlestick signals.

Just as the approach to a pivot point can tell a lot about traders' sentiments and attitudes, the way that an individual candle is formed

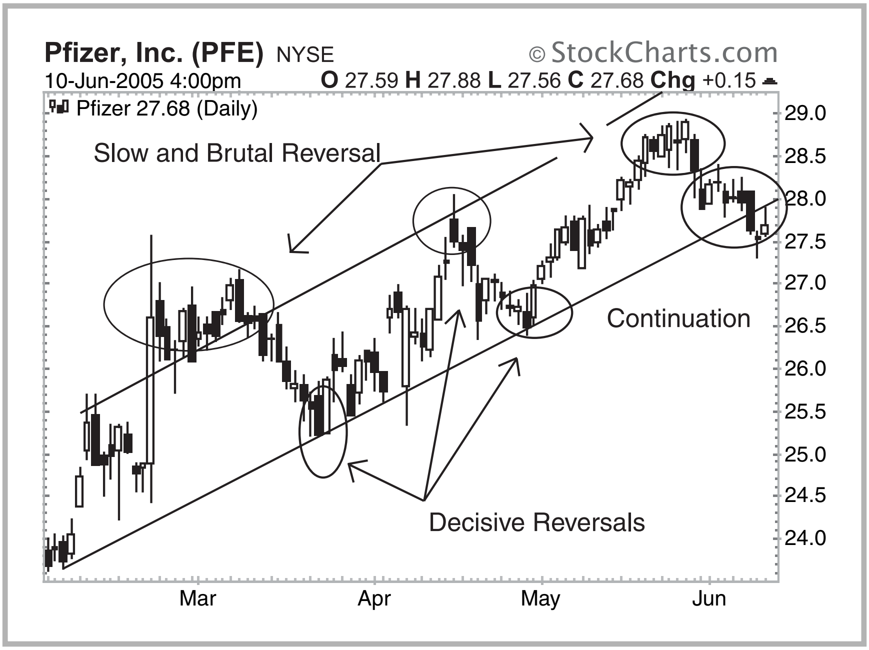
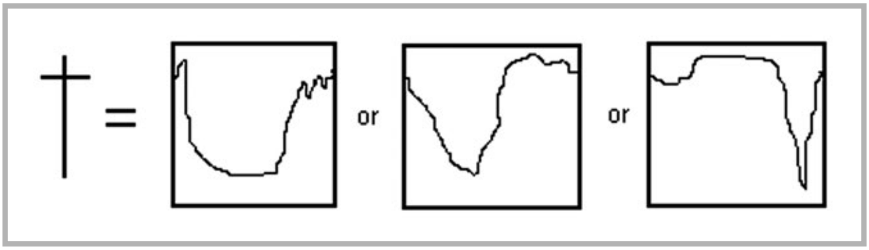



**Figure 10-46**

can point to the next day's follow-through. Two runners finish the first mile of a two-mile race; one is exhausted and the other looks fresh. The net result is they both finished but there is a clue as to how they will do in the second half. A single candle may have a name and an expectation, but how it is likely to behave tomorrow may depend on how it was formed.

A hammer pattern shows the recovery of a significant sell-off at support. The sell-off indicates that sellers drove the price hard at support but buyers bought up the bargain. The indecision is clear but the fact that buyers came back at support gives credence to the idea that the support may hold. OK, the historical accuracy of a Hammer pattern is 42% (better at support), but more light can be shed on this message of indecision.

**Figure 10-47**




The intraday composition of the Hammer can send significantly different signals (see Figure 10-47). The rally of buyers could be strong or weak, and it could have happened at the end or beginning of the day. The stock may have been buying or selling or languishing at the closing bell. Day traders know all too well that the sentiment at the end of the day often carries over to the next morning.

***Trading Tip***

At crucial pivot points, a trader wants to have any clues about how the stock may follow through in the morning. Noting the candle's composition may give some very helpful hints as to what comes next. Intraday charts are needed to evaluate the daily composition, but they do not have to be real time. Free delayed intraday charts are available on the Internet. Sometimes a look at the intraday composition can adjust the next day's trading plan in a crucial way.

## Summary for The Message

A candlestick signal is interpreted in an aggregate of all the occurrences observed over a long time. This produces generalizations that are good, but fine-tuning the signal by looking at its message, location, and composition may add weight and clarify the probable follow-through.

- Each day has a message but it is far more significant if it is at a pivot point.
  - Knowing the name is less important than reading the message.
  - Don't waste time searching for the "good ones."
  - Indecisive, one-day patterns can be 100% accurate.
  - One-day reversal signals rank among the most reliable.
  - Complex patterns are much less frequent.
  - Accuracy ranking takes in all occurrences, but signals at pivot points have more significance.
  - 50% accurate does not mean a 50/50 chance.
  - Bodies reveal sentiment and tails reveal volatility.
  - Gaps equal sudden changes in sentiment; the fill tells how important.
  - The approach to pivot points can reveal the traders' sentiments.
  - The candle's intraday composition can color expected follow-through.

## FAMILY TIES

Once a trader can recognize the message of a single day, understanding patterns becomes easier because it is no longer an abstract, rote memorization. When the message of a pattern makes sense, similar patterns come to mind more readily.

This section may prove to be a big help to learning and remembering candle patterns. The full definitions of the candle patterns have been previously laid out in this book, so the illustrations and references to the patterns are for recognition and comparative purposes only. Most patterns have some flexibility so that many illustrations would be required to show all the variations possible. Again, where pattern rules or detail may seem needed, please refer to the ample explanations elsewhere of the candle pattern rules.

Learning candle patterns in groups is much like recognizing family members. If a large number of relatives were disbursed in a crowd of strangers it would be easy to miss them. However, if the relatives were all brought forward and arranged by families units it would become rather easy to spot them, even if they were dispersed back into the crowd again.

Candlesticks, like relatives, can be grouped together and learned in family groups. They can be directly related or cousins. As in any family some of the cousins can be a bit odd, but in perspective they still fit and are much easier to remember if they can be placed into a family.

Candlestick patterns have very strict definitions, but there are many variations to the named patterns, and the Japanese did not give names to patterns that were "really close." Experience and common sense allow traders to read the message even if it does not exactly match the picture or definition in the book.

Hesitation signals have already been discussed elsewhere, and their characteristics are small bodies with tails of varying size representing volatility. Some have names and others do not but the message is obvious.

The majority of the one-day patterns do not strictly qualify for a name but it does not change their message. Trying to decide if a candle is a true Hammer or just a really close nameless cousin is pointless (see Figure 10-48). Classic indecision patterns like the Hammer and Doji Star have names and strict definitions for a reason, and they may be a bit more significant than their unnamed cousins, but so what? ". . . umm, let's see, is that a Western or and Eastern Spotted Skunk?"

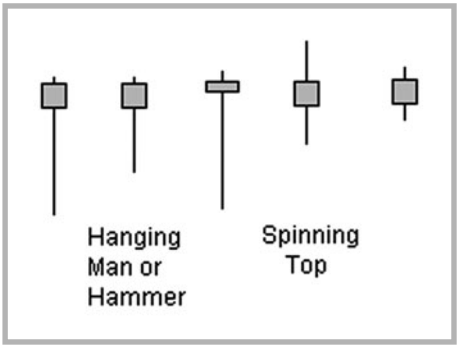



Figure 10-48

## The One-Day Family

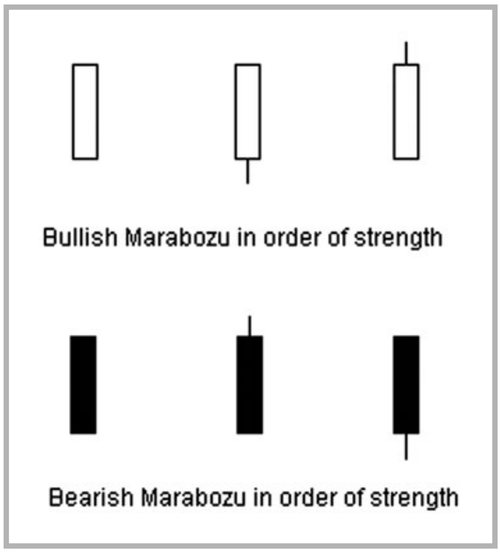
The most obvious example of familial relationship may be too subtle to recognize at first. It is the transition between a Bullish and Bearish Marabozu. At each end of this family group stand towering candlesticks. The Japanese term Marabozu refers to a monk sitting in the lotus position (see Figure 10-49). Viewed from behind, they sit solidly on flat ground and their shaved heads are smooth on top.


Figure 10-49

The Marabozu pattern is considered to be the strongest single-day pattern and is either very bullish or very bearish. The lack of any shadow indicates the sentiment was very strong and the traders reached a sold consensus.

The message from tails can be confusing, but put in proper sequence it makes sense. For example, a Bullish Marabozu has no extended tails. Adding a tail to the top creates an Opening Marabozu, and adding a tail to the bottom creates a Closing Marabozu signal. It can make a difference which end has the tail, especially at pivot points (see Figure 10-50). A tail at the bottom suggests an attempted sell-off at the open that was overcome and followed by strong buying which closed at the high of the day. A tail at the top suggests a strong unequivocal start but some backing away from the highs of the day. The stronger signal comes from the ending, not the beginning of the day, because how a big day finishes carries more weight than how it began.

**Figure 10-50**



Marabozu signals are found in several patterns. A few examples are Belt Hold, On Neck, In Neck, Separating Lines, Kicking, as well as several Tweezer patterns (see Figure 10-51).

The transition between the bullish and bearish Marabozu is like hiking between two peaks. There are many routes down and up the other side, and in the middle is a flat valley. The most neutral and indecisive pattern (the Four Point Doji), lies on the valley floor. The Four Point Doji is theoretical because it implies the stock opened, closed at the high and low of the day, which implies it did not trade. The Doji Star is likely the most indecisive pattern that will be seen.

Every single candlestick falls into this extended family and it helps to see them in the big picture. Starting with a Bullish Marabozu where complete consensus is obvious, adding tails and or reducing

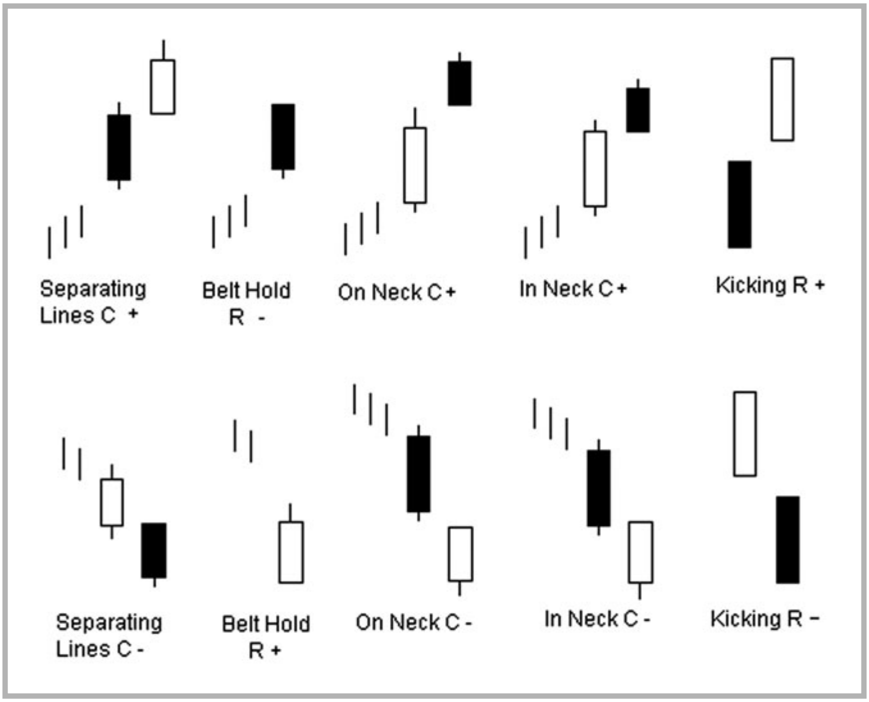
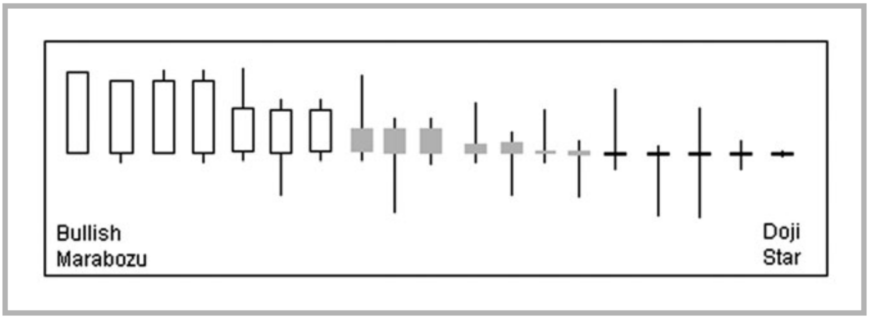



**Figure 10-51**

Figure 10-52



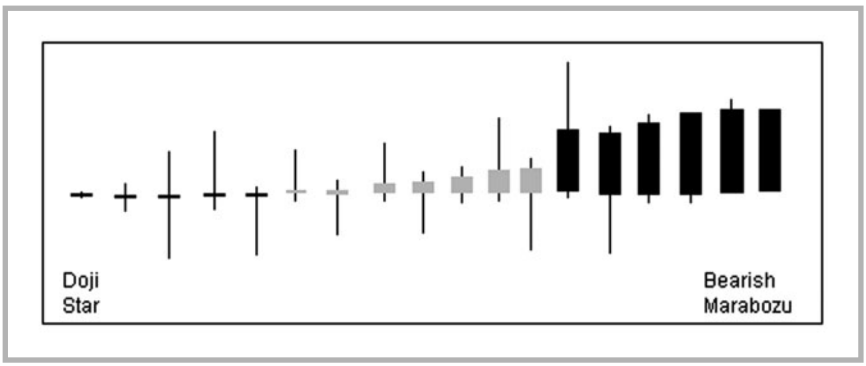

the body size begins to weaken the sentiment and add volatility ending with the Doji star (see Figure 10-52).

Moving past the middle, the bodies are closed and as they get bigger the sentiment firms up and tails gradually lose their significance. The signals firm and finally the bearish Marabozu is reached (see Figure 10-53).

## Body Size: How Big Is Big?

The Japanese refer to Long, Normal, and Short days and there are definitions for these distinctions, but common sense will suffice for

Figure 10-53



most traders. A look back over the last few weeks should make it obvious what constitutes a large, normal, or small day. Small means just that, small, and tiny would be in between small and no body at all, or Doji.

## Body Color

Big bodies are very significant and so their color is significant. As the bodies get smaller the sentiment weakens and the color becomes much less important. Very small bodies do not carry any significant color bias.

Tails add volatility, and a whole raft of one-day patterns blend into a blur of indecision. Some have names, many do not, but all are screaming the same warning (see Figure 10-54). There are many more variations that could occur, but in the muddle of the middle, color and/or name do not mean much.

## Splitting Hairs

For many "A" students, one point should not make the difference between an "A" and a "B." There are candle patterns that could raise

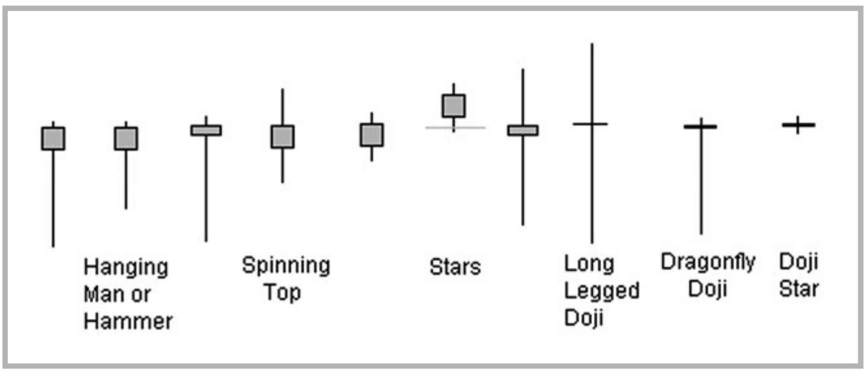
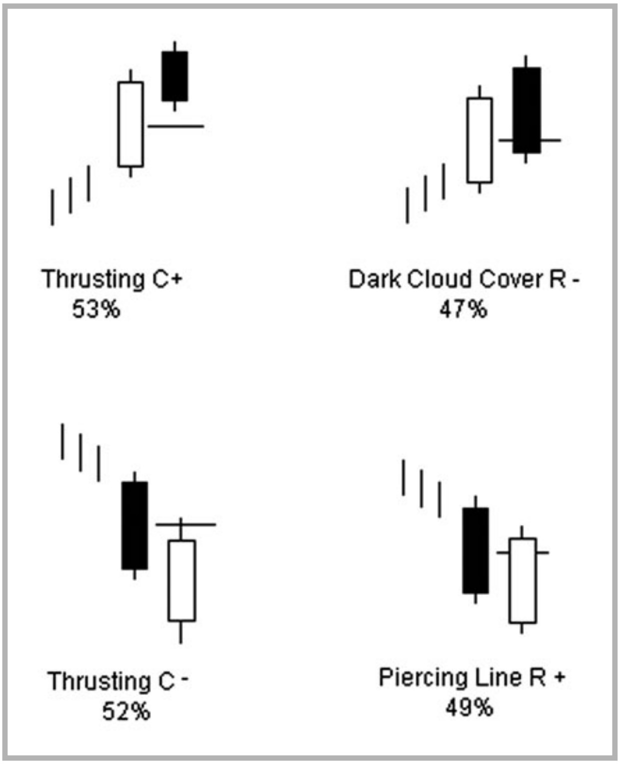



**Figure 10-54**

the same argument. Certain reversal and continuation patterns are very similar, and only slight variations dictate that one is a reversal and the other is a continuation pattern. The Thrusting + and Piercing Line patterns are a good example. Along with their respective reciprocal patterns are Thrusting – and Dark Cloud Cover (see Figure 10-55). The Thrusting (continuation) and Piercing Line (reversal) patterns are only separated by whether the rising second day closes above the midpoint of day, but 200 years of experience has determined that it is significant. The average accuracy percentages show how the significance of the signals can get fuzzy.

Most texts do not place these four patterns side by side, but they

**Figure 10-55**



should be associated and identified as the transition between continuation and reversal in a family group.

The Thrusting – and Thrusting + are reciprocals, but both are reversal patterns. It is generally easier to roll a rock downhill than to push it uphill, and so while the Thrusting patterns are exact reciprocals, at resistance the Thrusting – pattern is not likely to continue.

## Confirmation

A common element of pattern definition is confirmation. Confirmation may be suggested or required or not needed. Confirmation reflects the level of confidence or implied probability that a pattern will follow through with its predicted outcome. An indecisive signal does not need confirmation, so it is the reversal and continuation patterns that will refer to a level of confirmation needed to bolster their respective predictions.

It is fine to apply the suggested level of confirmation to a pattern, but it is very interesting to see why one pattern needs it more than another. To see why patterns have different needs for confirmation, it is necessary to understand the breakdown or reduction of patterns.

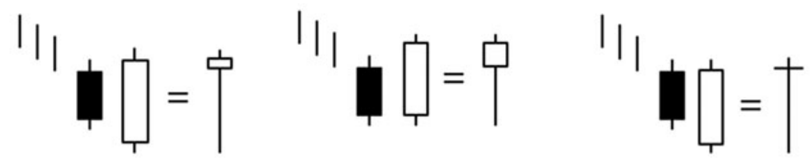
## Breakdown and Reduction of Multiple Line Patterns

Many years ago, Greg Morris demonstrated how two- and three-day patterns reduce to a simple one-day message. This information has been included in earlier chapters, but it will be enlightening to go through a comparative example showing the resolution of an Outside and Inside Day pattern.

### *Outside Day*

The very common Bullish Engulfing pattern is an Outside Day Pattern made up of a Long Closed Day in a downtrend, followed by an even larger Open Day. Day two opens below the close of day one,

Figure 10-56

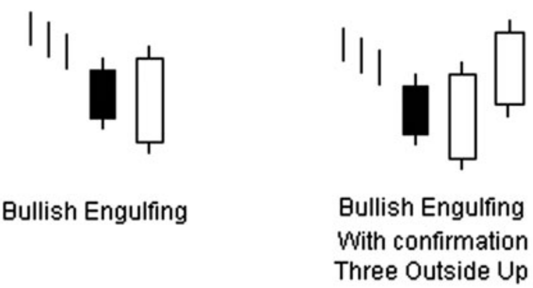



Acceptable variation of Bullish Engulfing and reductions

and closes above the open of day one. The reduction is done by constructing a single candle from the open of day one, the high and low of either day, and the close of day two. The Bullish Engulfing delivers an impressive show of force, but the pattern reduces anywhere from an indecisive Hammer to a long-legged Dragon Fly Doji depending on where day two closed. (See Figure 10-56.)

The signal is very clear because there is very little flexibility in the pattern. The downside selling pressure dried up in a dramatic way. A strong buying spree stopped the bearish slide, and if it happened at known support, it was even more significant. If a third day follows through to the upside and closes above the close of day two, the indecision is resolved and a strong bullish reversal has been signaled (see Figure 10-57). This pattern is called Three Outside Up, and looking

Figure 10-57



at the construction it makes sense: Three (days), Outside (day two is an outside day), up (it resolves to the upside).

Confirmation can now be used as a powerful and comparative tool. The most common two-day reversal patterns are the Engulfing and Harami patterns. The Harami patterns require confirmation but the Engulfing patterns do not. The shape of the two patterns suggests an obvious reason because the Engulfing looks more decisive than the Harami. The observation is right but the reason is not as obvious as it looks. There is a deeper and more complex reason that only reveals itself with comparative reduction of the patterns.

## Inside Days

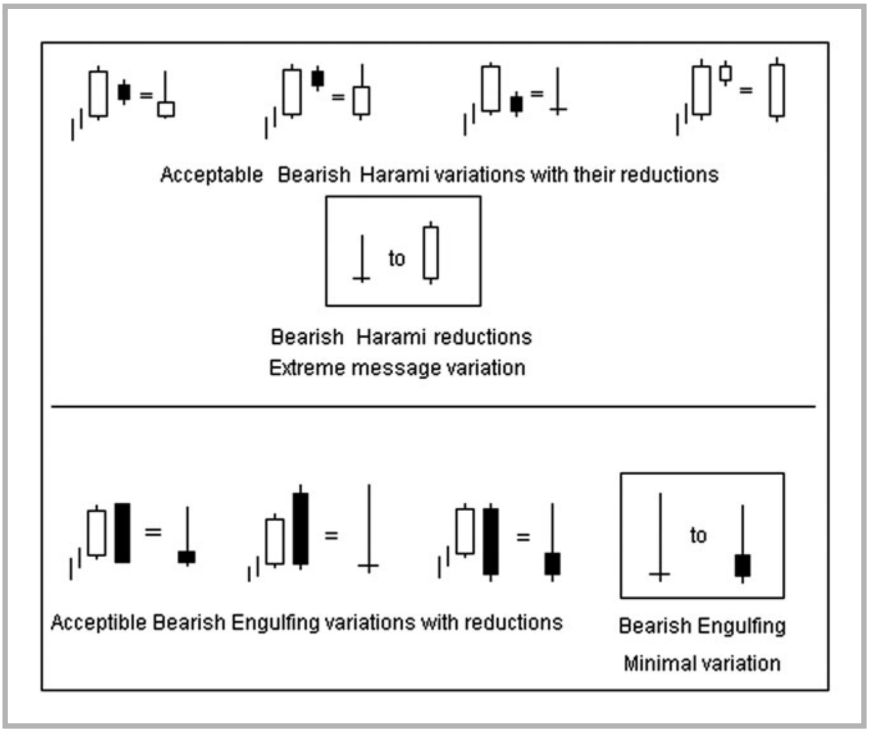
The Harami pattern is the classic Inside Day pattern. It begins with a Long Day in the direction of a current price trend followed by a small body inside day. The body of day two may touch either the open or close of day one but not both. It can be either open or closed but the opposite of day one is more supportive of the pattern. The Bullish and Bearish Harami reduce down to a wide range of signals from a Long Legged Doji to a big-bodied bullish or bearish day. Unlike the Engulfing pattern, there are many variations to the Harami, which hardly makes for a cohesive or consistent message.

Examining the two patterns together, it is clear why the Harami needs confirmation; without confirmation, the Harami can send a wide variety of signals. Here is a look at the Bearish Harami and Engulfing reductions (see Figure 10-58). The Harami takes three days at best to create the same signal as Engulfing creates on day two.

The small body on day two stops progress, but the reversal message may be much less probable than the Engulfing pattern.

Adding a third day of confirmation has an interesting effect on the Bearish Harami. The confirmation day is an open day that opens inside day one, and closes above the close of day one. This reduces

Figure 10-58




the Harami to the same signal the Engulfing pattern had on day two. The fact that it took three days may weaken the signal somewhat (see Figure 10-59). The Harami with confirmation has a new name, Three Inside Up, an odd name that should now makes perfect sense: Three (three days), Inside (an inside day), Up (resolved to the upside).

The intraday movement that forms a candle was discussed in the previous section. Variations on the way the day develops can color the message. It is very similar to reversal patterns and demonstrates why some patterns need further confirmation to strengthen their signal.

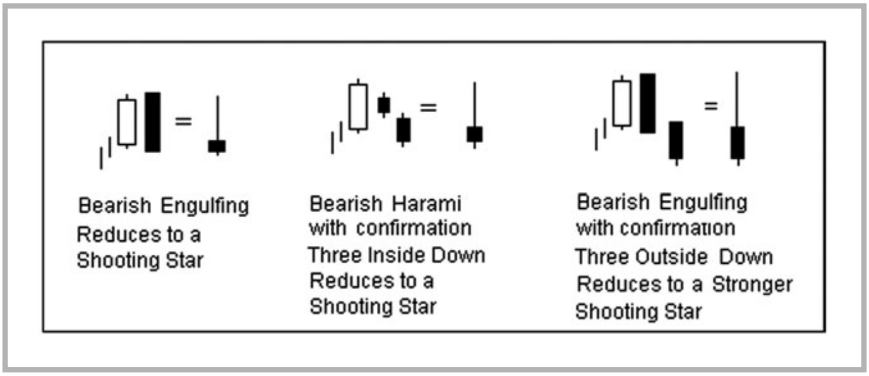


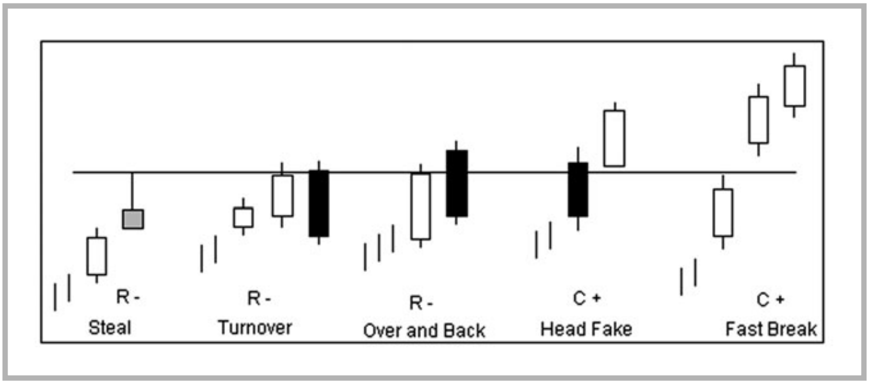

**Figure 10-59**

## Approach and Follow-Through

There are many candle patterns that describe the way a price trend approaches support or resistance. This was previously compared to a coach watching a team make its way to the playoffs. The patterns may suggest a reversal or continuation or indecision, and most patterns have a reciprocal with the opposite message. Here the approach patterns will be broken down into five groups. Groups one and five reflect very strong reversal and continuation sentiment; while groups two and three are reversals, and group four contains most of the continuation patterns. The distribution and number of patterns in each group back up the generalization that most candle patterns are reversals. Because most reversals happen at support or resistance levels (whether the trader can see it or not), knowing the likely pivot point (being able to read a chart) allows a trader to watch the approach and evaluate it as it happens.

The names of the five groups have been borrowed from basketball and will be explained: "steal," "turnover," "over and back," "head fake," and "fast break." They reflect the way the patterns behave as they encounter support or resistance (see Figure 10-60). The focus

**Figure 10-60**




must be placed on being aware of the location and interpreting the message in context. The candles may not be perfect but they are trying to tell a story, so it is very important to learn to read the message and understand what the possible implications are. That knock on the door may be the Big Bad Wolf or Ed McMahon with the Publisher's Clearinghouse check. But the fact remains—someone is at the door.

### *Steal*

Stealing the ball suddenly gives the momentum to the other team. This approach pattern suggests a volatile change of sentiment as the price reached a pivot point. A line chart would show this approach as a miss because the line would stop short of the pivot point and reverse away (see Figure 10-61). These signals are generally long tail candles that reach up or down to the pivot point and close moving off in the opposite direction. This approach can frustrate traders waiting for the stock to arrive and park at the pivot point.

This "drive by" opportunity is only available to those who can see the support or resistance level, and have a Trailing Stop or some alert set to activate whenever the stock arrives. If it is an intraday event, it will be missed by a lot of traders. Nonetheless, it will make perfect

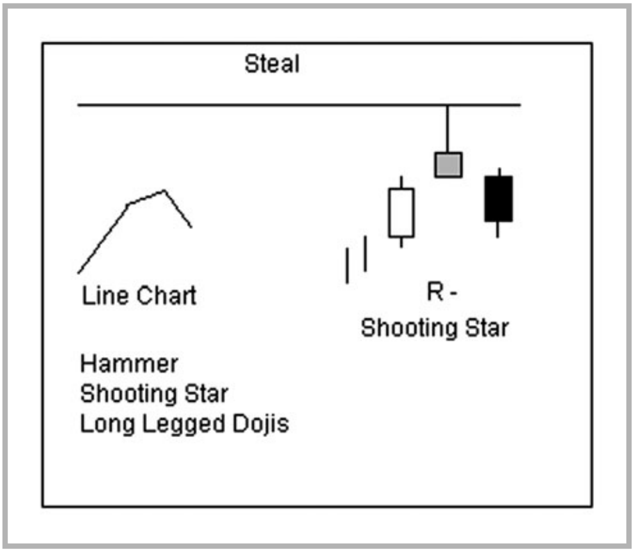



**Figure 10-61**

sense after the fact and the long tail will tell the story, "Hey, we stopped by but no one was home. Too bad."

A big gap to the support or resistance level can also reverse away when market makers miscalculate the right place to open a stock (see Figure 10-62). This is a very volatile day and after the dust settles there is a big question about the way the news was treated and often the selling continues.

### *Turnover*

A turnover gives the ball to the other team. Most turnovers are handled by the referee and happen after a goal or a foul. These patterns arrive at the pivot point and then reverse without any equivocation (see Figures 10-63 and 10-64). This is the largest of the five groups of patterns and this group tends to come to a stop and make a solid turn. The "turnover" group includes one- to five-day patterns and is a simpler group of patterns to play, as they tend to march up to pivot points, salute, and then reverse.

**Figure 10-62**

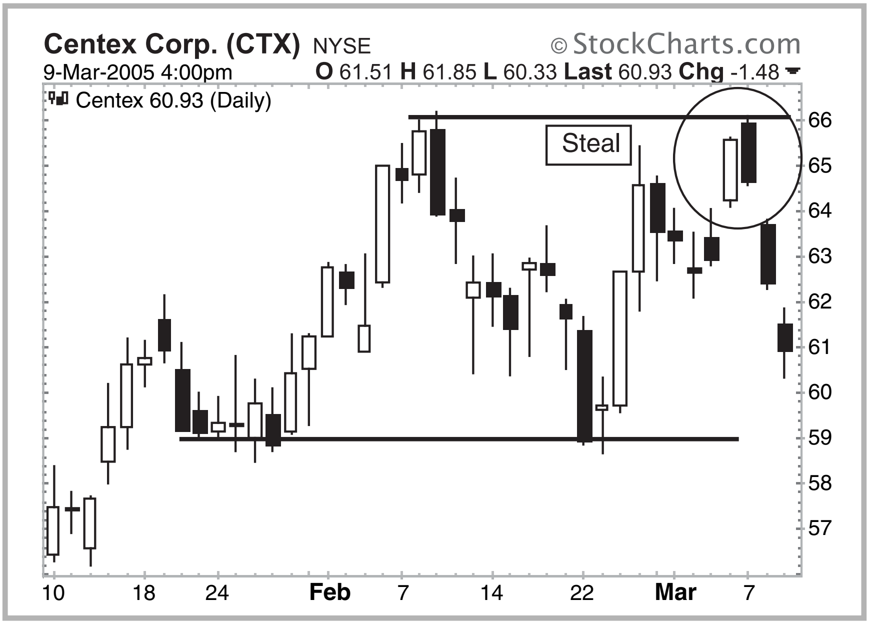



**Figure 10-63**

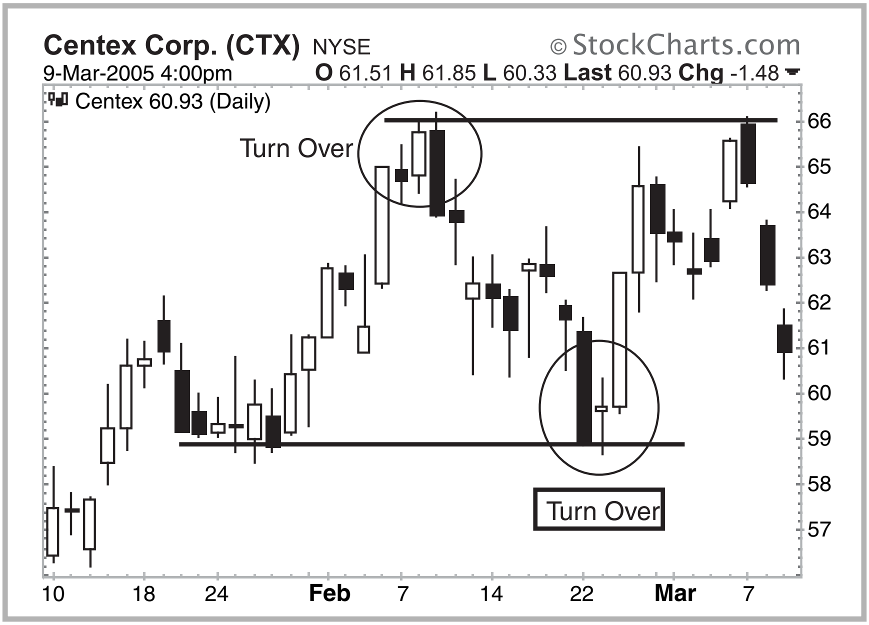


**Figure 10-64**
**Turnover Patterns**

| | | | | | |
|---|---|---|---|---|---|
| R + | Doji Star + | R + | Harami + | R + | Stick Sand. + |
| R – | Doji Star – | R – | Harami – | R – | Stick Sand. – |
| R – | 1 Black Crow – | R + | 3 Inside Up + | R + | Concealing + |
| R + | 1 Wht Soldier + | R – | 3 Inside Dn – | R + | Uniq. 3 River + |
| R – | Desc. Hawk – | R + | Match. High – | R – | Unique 3 Mtn – |
| R + | Hom. Pigeon + | R – | Match. Low + | R – | 3 Stars North – |
| R + | Deliberation + | R + | Ladder Bot. + | R + | 3 Stars South + |
| R – | Deliberation – | R – | Ladder Top – | | |

### *Over and Back*

Over and back suggests crossing a line and then jumping back again. It is not a perfect analogy, but this group gaps or probes across the pivot point and then returns. It almost suggests an "oops" or "just kidding" kind of move. A few continuation patterns show up in this group, but most reverse after the errant foray across the line.

### *Gaps Are Common in Group Four and Five*

The over and back patterns can also have long tails (Shooting Stars and Hammer patterns) that act like scouting parties. Intraday they may shoot across the support or resistance line and come back. The signal often plays out as if they came back saying "Whoa, I don't think we want to go there" (see Figures 10-65 and 10-66). Several patterns can fit in both turnovers and over and back patterns.

**Figure 10-65**

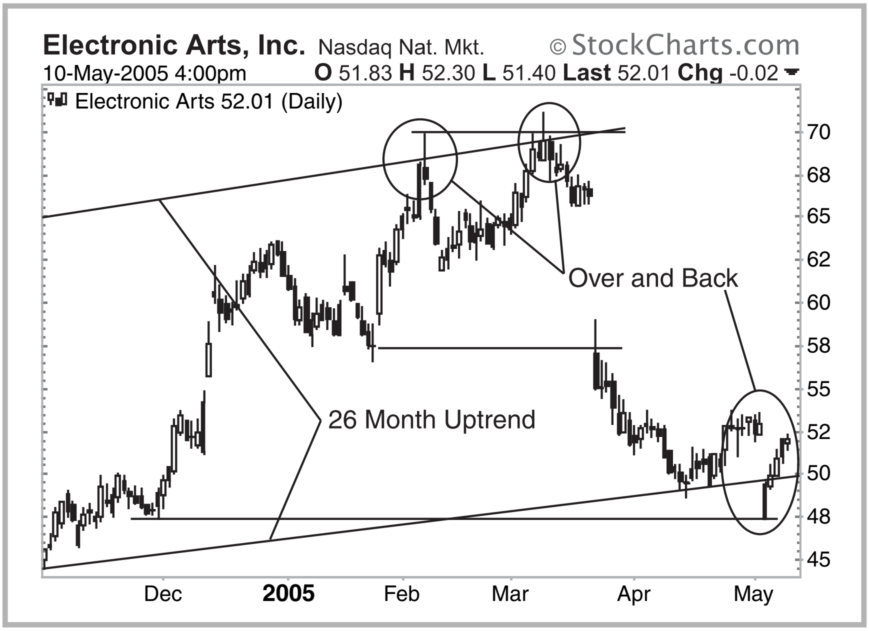



**Figure 10-66**
**Over and Back Patterns**

| | | | | | |
|---|---|---|---|---|---|
| R + | Tri Star + | R – | Gap 2 Crows – | R – | Gap 2 Crows – |
| R – | Tri Star – | R + | Gap 2 Rabbits + | R + | Gap 2 Rabbits + |
| R – | Two Crows – | R – | Dk Cld Cover – | R + | Engulfing + |
| R + | Two Rabbits + | R + | Piercing Line + | R – | Engulfing – |
| R – | Evening Star – | R + | Doji Star + | C + | Breakaway + |
| R + | Morning Star + | R – | Doji Star – | C – | Breakaway – |
| R + | Meeting Lines + | R + | 3 Outside Up + | | |
| R – | Meeting Lines – | R – | 3 Outside Dn – | | |

### *Head Fake*

A good shooter can pull up and look like they are going to stop and then accelerate past the opponent who "bought the fake." This group is a made up of continuation patterns that start out as a break-out move followed by a convincing reversal. Traders can get whip-shawed here by stopping out on the reversal (which they should have), and then watching in frustration as the trade continues in the original direction. The problem was not being stopped out; the problem for traders is sitting there feeling sorry for themselves while a perfectly normal market move takes place (see Figure 10-67). Knowing this can happen and what it looks like allows the traders to switch at the right spot and get on with the right trade.

Head fakes can be really convincing and a good trader knows the

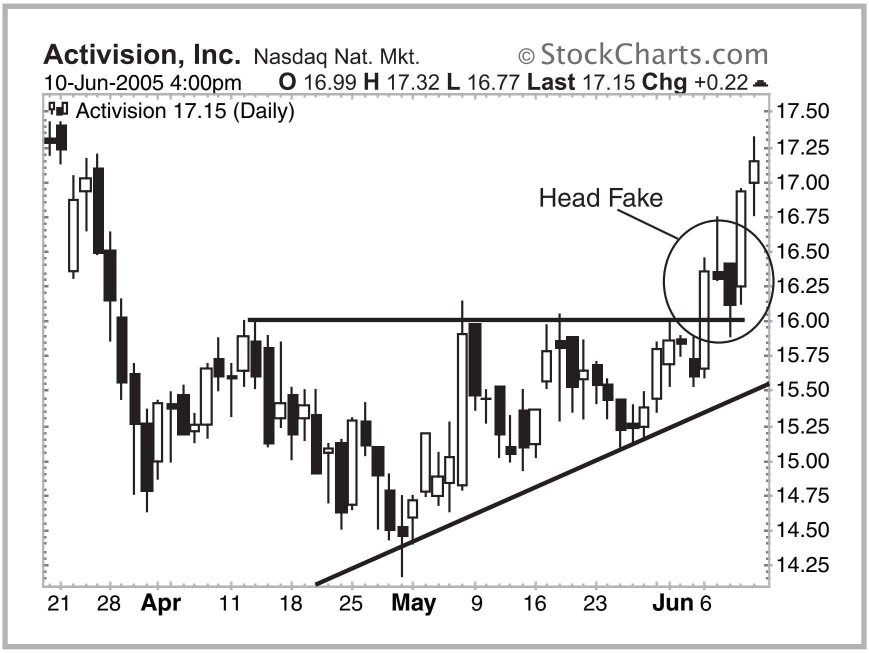



Figure 10-67

initial reversal may or may not keep going and makes the trade with that in mind. If it keeps going, they are in the right trade, and if it reverses again, they recognize it and switch stop rather than quit and feel abused. In street basketball, the term used is being “shook,” and many traders have felt “shaken” out of trades that they should have stayed in.

It is important to learn this group well because they are multiday patterns that can give confusing signals. Learning these patterns will help to avoid whipsaws and frustration because continuation patterns are failed reversals. These patterns tend to look like the letter N because they move over the line (support and or resistance), come back like the over and back group, and then plow ahead in the original direction. This group also features the gaps that are strong enough to keep going (see Figure 10-68).

**Figure 10-68**
**Head Fake Patterns**

| | | | |
|---|---|---|---|
| C – | Downside TG – | C + | Sep. Lines + |
| C + | Upside TG + | C – | Sep. Lines – |
| C + | Mat Hold + | C + | 3 Line Strike + |
| C – | Mat Hold – | C – | 3 Line Strike – |
| C – | Falling 3 M – | C – | Gap 3 Meth. + |
| C + | Rising 3 M + | C + | Gap 3 Meth. – |

### *Fast Break*

The last group is the fast break group, which tends to ride the momentum right on past support and or resistance (see Figure 10-69).

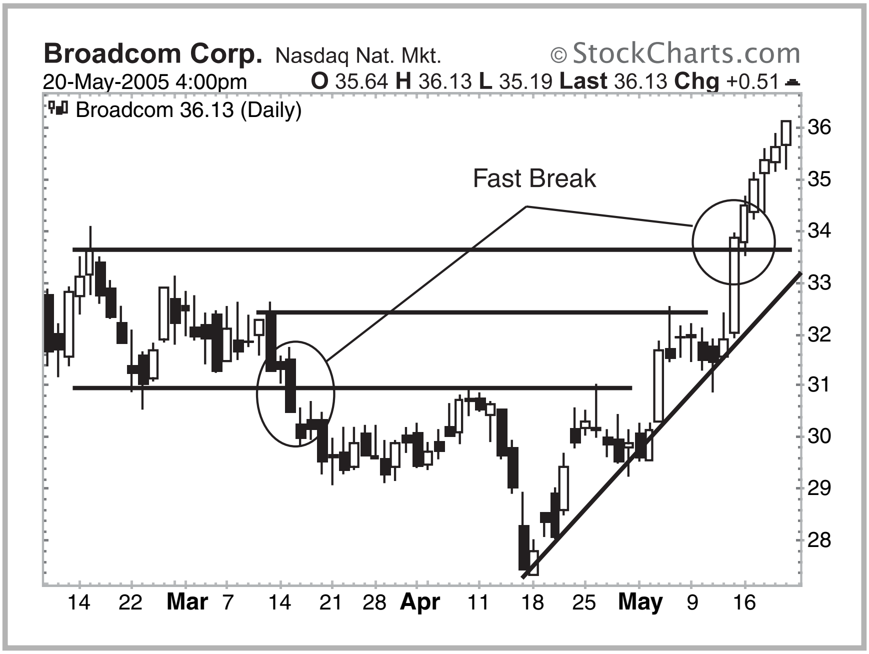



**Figure 10-69**

This is a small group because a strong candle (like a large bullish or bearish day) that blows through a pivot point is too obvious to name, and gaps that do not look back are rare and obvious. Only the gaps that hesitate and then continue have names (see Figure 10-70).

**Figure 10-70**
**Fast Break**

| | | |
|---|---|---|
| C + | SxS Blk L + | Big Break out days |
| C – | SxS Blk L – | Unfilled gaps across |
| C + | SxS Wht L + | Support or resistance |
| C – | SxS Wht L – | lines |

The names are few at either end of the group list (one and five), which underscores the idea that traders tend to know where the support and resistance levels are. There is usually some level of contest before reaching consensus, and the contest at support and resistance can be over quickly or long and hard fought. Groups one and five would be exceptions and might represent forfeiting. To group one, the other guys were just “too scary” so they gave in and backed away. To group five, the other team just gave up and offered little or no resistance, but the majority of the time (groups two, three, and four), gaining a consensus at pivot points requires putting the ball on the court and playing a game.

## Extended Families

Extended families have many different subcategories: cousins, aunts, male grandchildren, etc., and the analogy can extend to candlesticks quite well. Space and time dictate that not every family relationship will be addressed here; however, the reader may want to use the following format to explore additional familial relationships.

The example here is set at support and deals with as many candles as possible in a modified family tree. A downtrend is assumed and a support level has been reached. While it is not possible to be as accurate as a genus flow chart that an anthropologist might use, it is a very good overview and the reader is free to draw additional relationship correlations (see Figure 10-71). The layout is built on a horizontal sequence moving left to right. Starting with a Harami R+ (Bullish Reversal Harami), it ends with Three Outside Up R+. There is some similarity to the earlier description of the Five Approaches, but here the related patterns include reversals and continuation patterns. Each pattern on the center line sequence is a slight variation to the one on its left. Related patterns (if there are any) branch off either up or down and are labeled as R+ (Bullish Reversal) or C– (Bearish

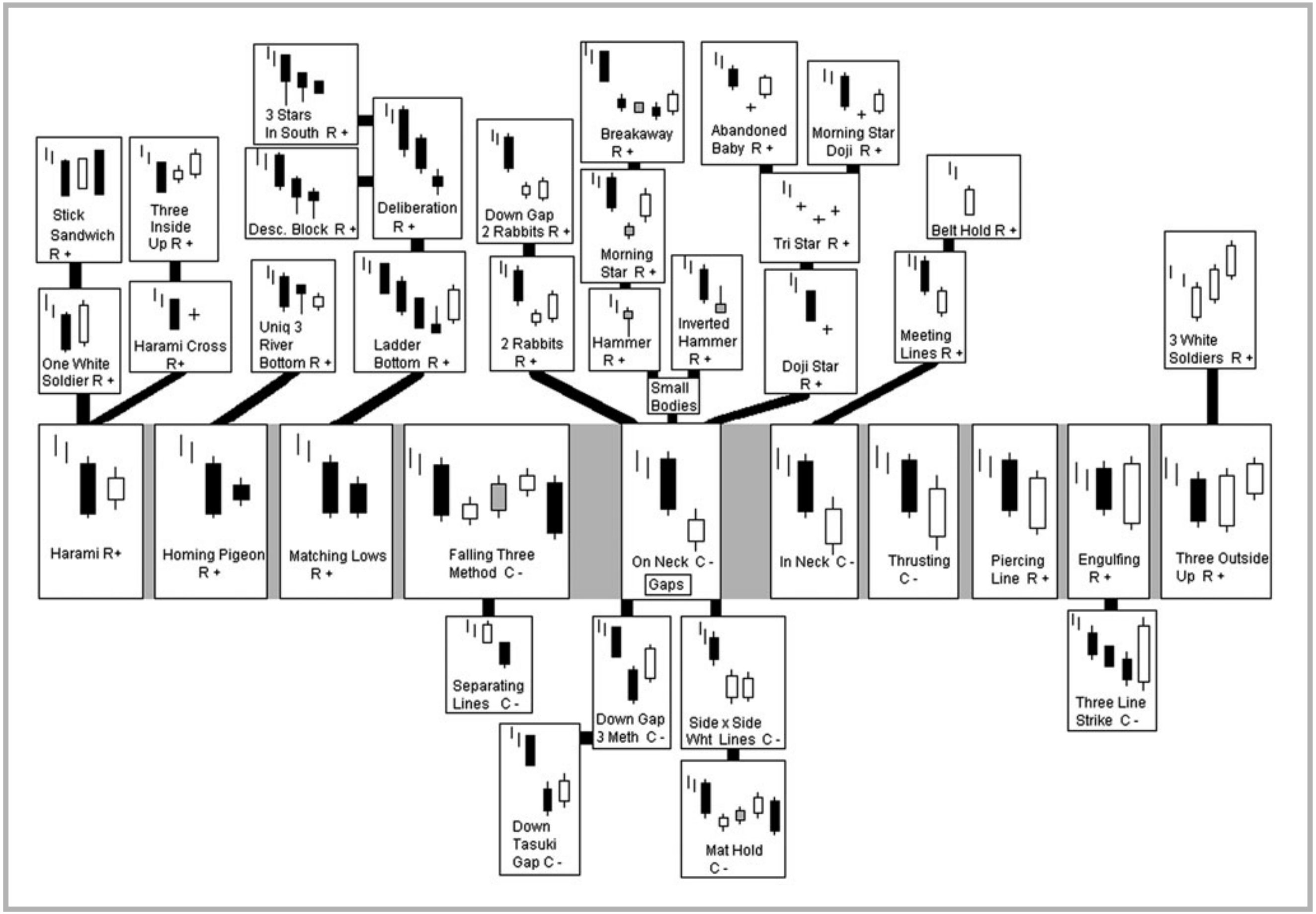

3 Stars
In South R +
Stick
Sandwich
R +
Three
Inside
Up R +
Desc. Block R +
Deliberation
R +
Down Gap
2 Rabbits R +
Breakaway
R +
Abandoned
Baby R +
Morning Star
Doji R +
Morning
Star R +
Tri Star R +
Belt Hold R +
One White
Soldier R +
Harami Cross
R+
Uniq 3
River
Bottom R +
Ladder
Bottom R +
2 Rabbits
R +
Hammer
R +
Inverted
Hammer
R +
Doji Star
R +
Meeting
Lines R +
3 White
Soldiers R +
Small
Bodies
Harami R+
Homing Pigeon
R +
Matching Lows
R +
Falling Three
Method C -
On Neck C -
Gaps
In Neck C -
Thrusting
C -
Piercing
Line R +
Engulfing
R +
Three Outside
Up R +
Separating
Lines C -
Down Gap
3 Meth C -
Side x Side
Wht Lines C -
Three Line
Strike C -
Down
Tasuki
Gap C -
Mat Hold
C -

**Figure 10-71**

Continuation). Space constraints kept additional data (like accuracy %) from being displayed. Individual data is best reviewed in Greg Morris's individual pattern analysis and summary graphics.

The value of this chart is the visual proximity of the related patterns. It may seem a bit jumbled at first but that is also its strength. The vast majority of people gain a great deal from a picture, and often a good picture keeps revealing hidden gems upon repeated study. After some time spent getting used to the names and shapes of the patterns, the familial relationship should begin to make sense. Each section or group that becomes familiar becomes a building block. The variations are fairly slight in many cases, and sometimes just a slight variation makes the difference between a reversal and continuation pattern.

Many single-line candles are missing, but related patterns are there and it should be easy to figure out where they could be placed. For example, a long-legged Doji is a variation of the Hammer and Inverted Hammer on the chart. The long-legged Doji would just be a more volatile and indecisive variant.

### *Cousins*

It is helpful to continue to look for correlations, characteristics, and similarities that make it easier to remember patterns. The concept of cousins has been introduced earlier in the discussion of Haramis and Engulfing patterns with their respective confirmations, partly because they are the most common patterns traders will run into, but it is a concept that can now be broadened a bit. This is intended to spur the reader on to look for and recognize relationships and correlations in familial patterns. In other words this is the start, not the end.

## Gaps

A quick reminder here that gaps are not all the same. True Gaps leave a hole in the trading at the end of the day and neither the body nor the tails of the previous and current day will overlap. Body Gaps have only overlapping tails and Opening Gaps will close during the day, meaning the bodies will meet or overlap at the close of the day (see Figure 10-72). Certainly not all gap patterns happen at pivot points but many do and are often part of more complex patterns.

The fact is, over 90% of gaps fill the same day they happen, so true gaps are very rare. The fact that the price gapped carries a major message at the open, but how it behaves (stays open, overlaps the tails or fills) tells the real value of the gap. True gaps tend to be continuation signals and if they jump across support or resistance lines it signals a strong possibility of a continuation. Body gaps and opening gaps are not as strong as true gaps and are very often part of reversal patterns (see Figure 10-73). Candle pattern gaps are either filled or left open.

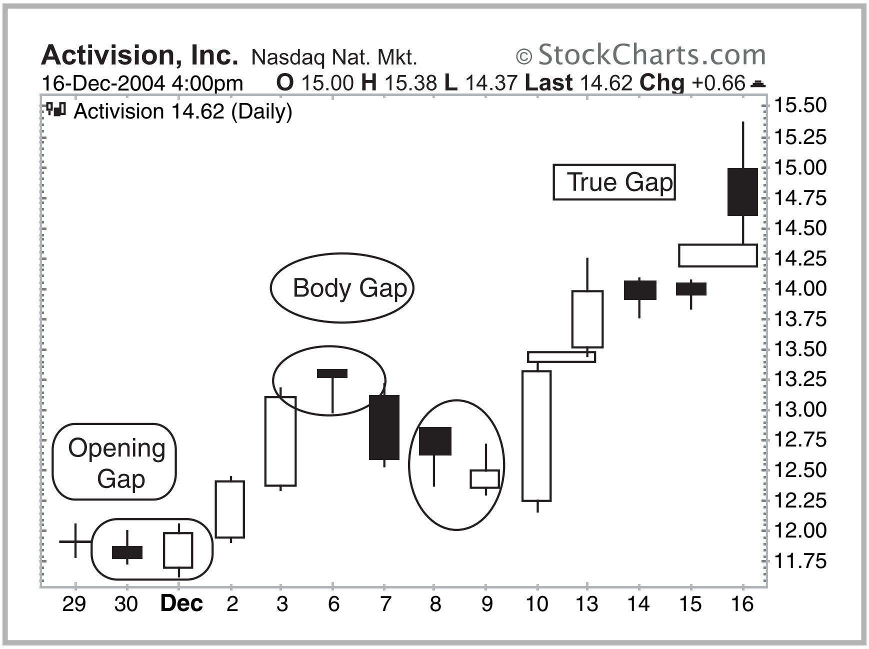
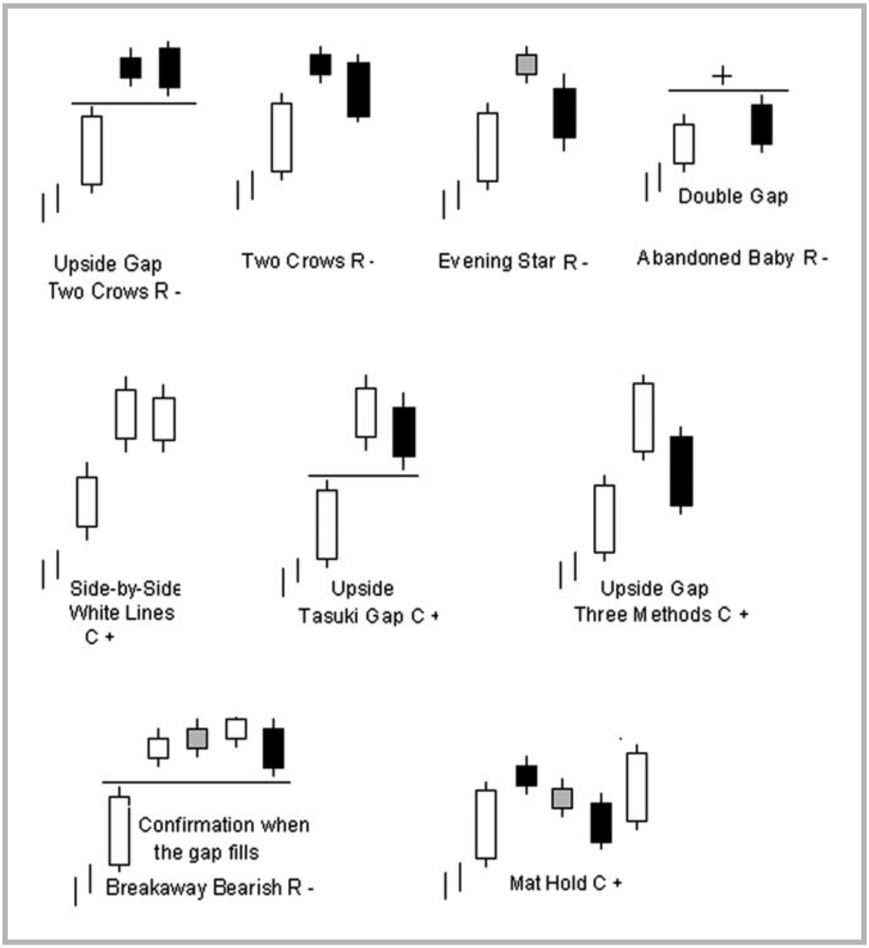



**Figure 10-72**

Figure 10-73




The true gaps left open are almost all continuation patterns, while the filled gaps tend to be reversals.

## Tweezers

A pair of tweezers meets together at a common point (see Figure 10-74), and a few candle patterns involve Tweezer configurations.

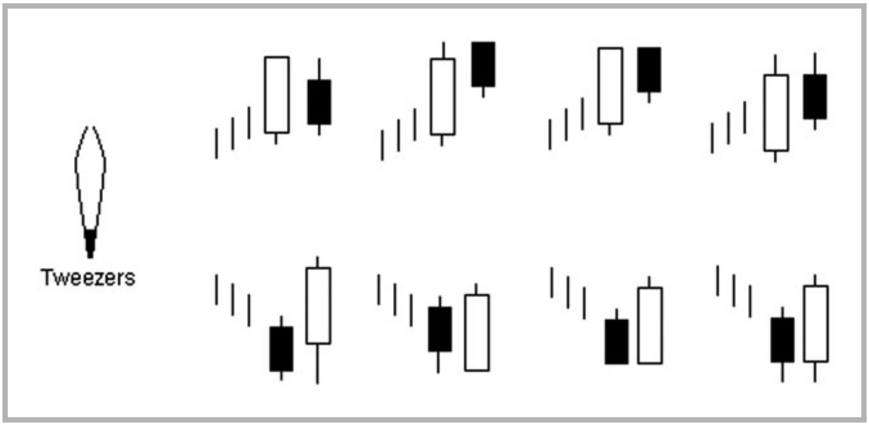



Figure 10-74

Tweezers is more a concept than a set of patterns. In general when a stock recognizes a price level from a previous day, it implies that the traders are still aware of that reversal point. It is only common sense that the more attention that is placed on a price, the more significant it may be.

### *Trading Tip*

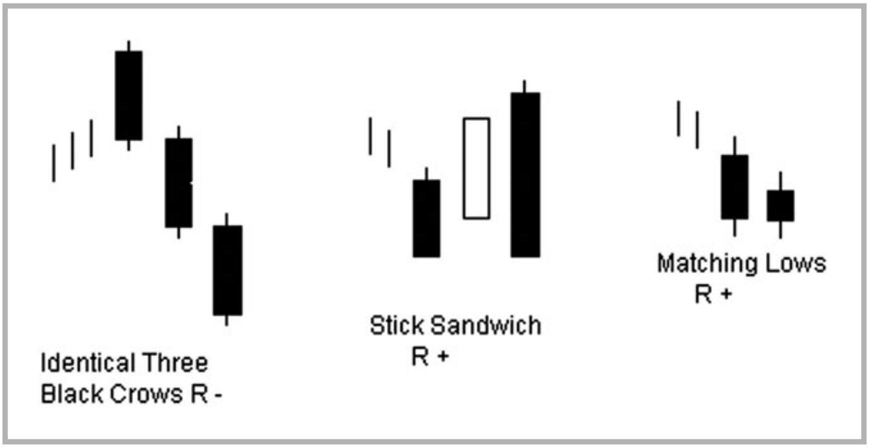
Often tweezers are part of reversal patterns, but there is caveat here to remember. Many stocks routinely open at the same price they closed at the day before. Reading Tweezers requires putting them into context, and like gaps that happen too often to have any relevance, high-frequency Tweezers equal irrelevance.

Here are a few patterns that include a Tweezers as part of their configuration (see Figure 10-75).

### *Inside and Outside Day Families*

The inside day and outside days are different reversal signals that can reduce to many different messages, from strong reversal to indeci-

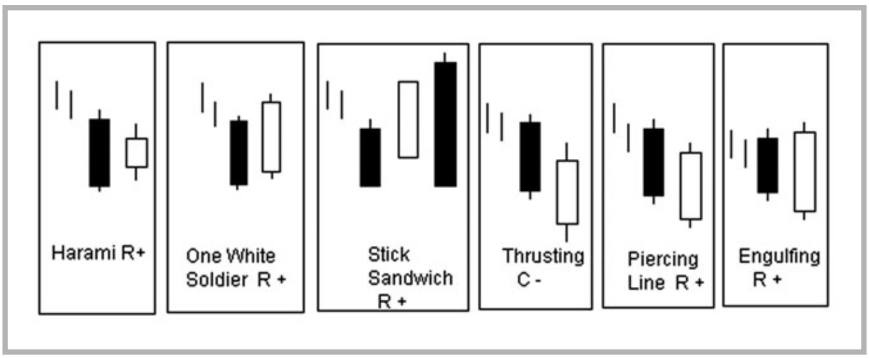
Figure 10-75




sion, and when confirmed they both have the same message. But there are related patterns that make the transition between inside and outside days (see Figure 10-76). Again, for space reasons, only the Bullish reversal will be shown. The reciprocals will have the opposite message.

The Harami pattern shows hesitation by throwing a smaller inside day. The large first day is a statement day, and hesitation of the

Figure 10-76



Harami requires confirmation or capitulation. The confirmation comes with the Three Inside Up and capitulation comes with Falling Three method. The One White Soldier is one of many variations that trace back to the Harami (see Figure 10-77).

The Three Outside Up is the confirmation of the Bullish Engulfing, and while the accuracy goes up a few points, the reduction does not

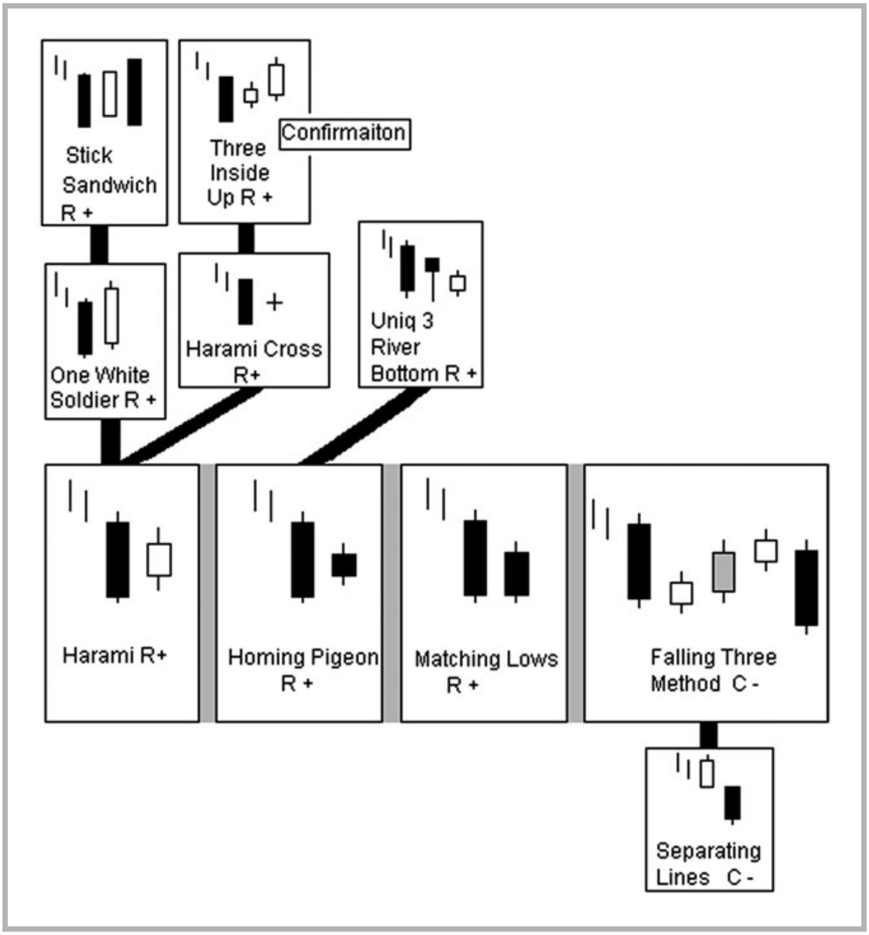
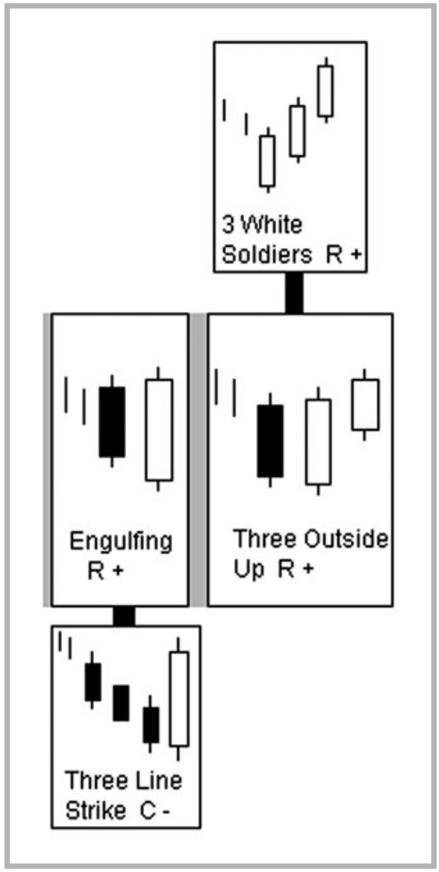



**Figure 10-77**

get that much more bullish. The last two days of the pattern would reduce to a very large bullish candle, but the net is still hesitation. A third bullish day could produce the Three White Soldiers pattern, which reduces to a very large bullish day and the accuracy jumps up again. The Three Line Strike reduces four days to the same signal as the Engulfing. This engulfs all in one day. Somehow this reflects an anomaly and the odds are that this Engulfing Day will be followed by bearish continuation instead of a bullish reversal (See Figure 10-78).

**Figure 10-78**



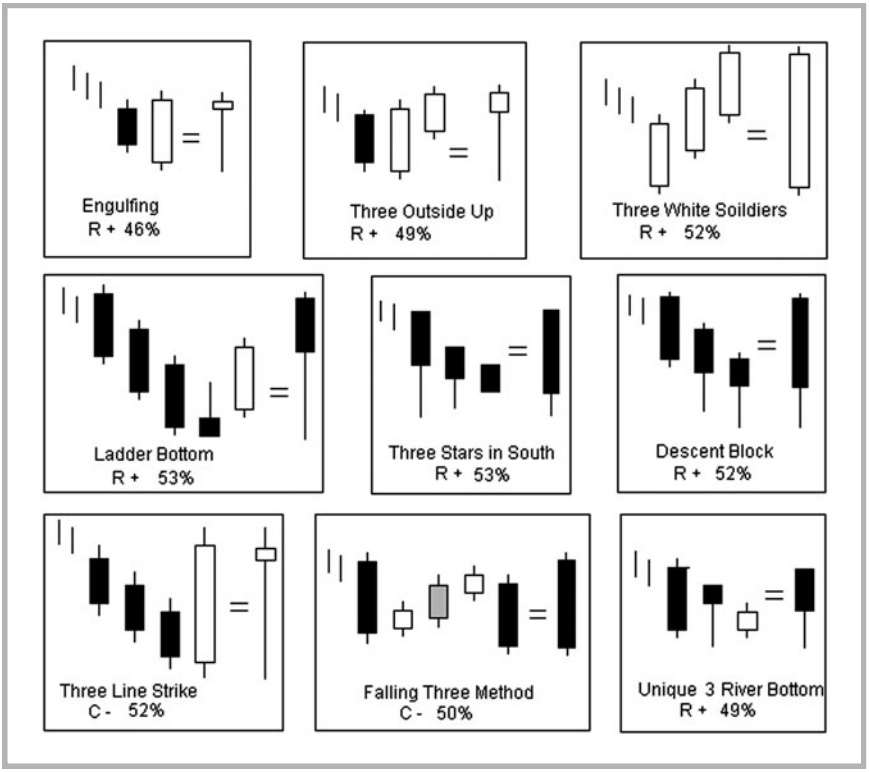



**Figure 10-79**

Finally, here are a few of the complex (three to five days) patterns with their accuracy percentages. The disproportionate number of reversal patterns is typical. It is interesting that almost all reduce to some variation of a Hammer line (see Figure 10-79).

### *Trading Tip*

The Three Line Strike reminds traders not to bite too hard on big one-day reversals, but if the stock was at support, closing the bearish trade and or starting a bullish one on the bounce is totally appropriate. Knowing the pattern would then dictate waiting to see if it pulled back to test support again. Worst case, the trader gets to add to the trade if it bounces and switch to a bearish continuation if it drops on through. Win-win.

## Summary for Family Ties

Like the illumination that charts brought to the mental darkrooms of ticker tape reading, candlesticks have broadened the trader's vision of market temperament and pattern recognition. However, as stated at the very beginning, understanding and effectively utilizing candlesticks is a far cry from knowing a few names and searching to find "the good ones." New black-belts in any martial art find that they have worked very hard and progressed to an important milestone. In fact it is the point where their instructors inform them that their journey is about to begin. Their efforts have properly prepared them to now really learn the art.

CHAPTER ELEVEN

# Conclusions

Successful analysis of the stock and futures markets is not an easy task. Most participants prepare themselves no better than they would for a game of cards. One must first learn how these markets work, then learn about the many different kinds of analysis that are available, such as, fundamental and technical analysis. On a smaller scale, the field of technical analysis offers a host of varying techniques: Japanese candlestick analysis is one of these.

This book emphasizes that candlestick analysis should be used with other analysis methods. At the risk of sounding contradictory, I would like to warn that too many methods can only confuse and hinder. It reminds me of the saying that the person with a watch always knows what time it is, but the person with two watches is never sure.

Let me say it succinctly and clearly! Candle pattern analysis should always be used with other confirming techniques, such as the filtering technique described in Chapter 9 and/or the techniques outlined by Ryan Litchfield in Chapter 10 involving support and resistance areas on charts.

It has been shown that candle pattern analysis can enhance the use and timing of popular technical indicators. Filtered candlesticks consistently outperform a host of technical indicators and usually candle patterns by themselves. The combination of technical indicators and techniques is not new; in fact, it is the method of analysis most successful traders use. Adding candle patterns to the arsenal will surely further improve trading results.

Over 7 million days of data is strong evidence to support the statistics in the Pattern Detail Information Boxes. The average % Wins ranged from 64% to 41%, with only 5 patterns above 59%. Is a %Win of 58% good enough to not require confirmation? I don't think so; that is why I state time and time again that candle patterns need to be used with other technical techniques. The Japanese literature was void of specifics and kept candle patterns out of the specific definition arena—a little light on details and lots of generalizations. Don't get caught up in the hype and cheerleading about Japanese candlesticks; use them to enhance other technical methods. Their short-term nature will almost always improve the other techniques.

The use of candlestick charting is clearly a more visibly enhanced method of viewing price data. Anyone who would prefer bar charts is just afraid of change and cannot justify it other than stubbornness.

I'm sure that with the passing of time, new and different analysis techniques will surface. Some will gain in popularity; some will go by the wayside. Any analysis technique that has a substantial basis for its method will usually survive. I am convinced that candlestick charting and candle pattern analysis will be a survivor.

# Appendix A: Interview with Japanese Trader Mr. Takehiro Hikita

Mr. Takehiro Hikita has graciously provided me with a large amount of insight into the candle pattern philosophy. I have never met anyone so devoted to the detailed study of a concept as he. He started using candlestick analysis many years ago. In fact, all of his charting was done by hand until personal computers became available.

During a trip to Japan in January, 1992, I studied the candle philosophy and interpretation with Mr. Hikita. I also maintained a log of our conversations, from which I have selected appropriate questions for this interview.

Occasional editing was done to assist in clarifying his answers, definitely not to change the meaning. It became quite obvious to me that using English as a second language resulted in a completely honest and direct response; with no effort to be clever or entertaining. I found this to be quite refreshing and decided that you might also.

**1. How and when did you first become interested in investing and trading?**

*I believe it was when I was around 31 years of age, that is over 25 years ago. It was, however, once terminated and I stayed out of the market for about 2 years losing money, more than enough at that time.*

2. **When did you realize that a form of technical analysis was better that fundamental analysis?**

*It was when I started trading again and I was around 41 years of age, after leaving the company for some reason. Beginning with candlestick pattern analysis, I studied and researched all different kinds of Japanese analysis techniques with real trading, and was extended later on the method available in the States. My starting to trade again was with the policy to do so based on the technical analysis and no more guesses and fundamental analysis to make a living. I am fortunately still in the business of trading.*

*Speaking of this story a little further I started subscribing to* Commodities *(now called* Futures*) and purchased many publications such as* Commodity Trading Systems and Methods *written by Kaufman and Wilder's publications. My first use of a calculator was the programmable Texas Instruments product on Wilder's method. Then the Casio's programmable calculator for me to build in my own method, as I became serious. Then to make the daily analysis much easier, I purchased the IBM-5100 with 32K memory; it was 1977.*

*In 1979, I learned the Apple II came out on the market which has a graphic capability. I then immediately purchased it by importing directly from the States. In 1980, I joined CompuTrac and attended their first TAG Conference in New Orleans. My* Stock & Commodities *magazine subscription started then.*

3. **Did you always use candle charting for your analysis? If not, when did you start suing candle charts?**

*It was from the very beginning, as far as taking a look at the market in general, to know how the market is acting. The candlestick charting method is the only one available in Japan to record the history of the price activity in graphic form. It is just like the bar chart in the*

*States. Regardless of whether I liked it or not, it was what was used then.*

*But, the candlestick pattern analysis is another subject, rather than the charting itself. My interest on how to read the pattern better was probably few years later. I first started trading after reading the first issue of Shimuzu's book in 1965, the original of* The Japanese Chart of Charts *translated by Nicholson.*

**4. Are candles used in Japan today as widely as bar charts are used in the United States?**

*As already mentioned, there is no other method than candlestick charting to show a market record and activity in Japan. Yes, it is being used just like the bar chart in the States. The pattern recognition is another subject within the chart analysis.*

**5. Is the word candlestick a Western term? If so, what is candle charting and analysis called in Japan?**

*There is generally nothing but the candlestick charting to show the trend and market activity, and any other are classified as the analysis since they are rather clear to know the pinpoint to take an action, like the Point and Figure chart. Speaking of the chart, we generally call it Hi Ashi/Daily Charts, Shu Ashi/Weekly Chart, and Tsuki Ashi/Monthly Chart. The Japanese word for candle is* roshoku.

*For your information, Ashi means Leg or better say Foot, and the foot has an inside meaning of the past record, that is probably from the foot stamp that shows the past movement and activities, not only as a market term but in general. I then feel the Candlefoots is better to be called in English. It is, however, alright as lone as understandable and sounds smooth to people's ears.*

**6. Do you trade stocks, futures, or both?**

*Yes, I trade both, I trade actively the futures but not the stocks. My trading stock is a long-term basis, never sell. This is in order to hedge from inflation, while trading the futures is to make money in the short term.*

*There are other reasons. It is easier to find a pivot in the futures, especially to find a pinpoint to short and I like to sell, rather than go long, which has a false start often, compared to going short. Not only that, but it will be only one-third of the time needed for movement to gain the same price difference in the case of short, compared to long.*

**7. Have you found that candles work better with stocks, futures, or does it matter?**

*Again, the candle charts and candle pattern analysis should be separated. The candlestick is only the chart itself, but the candlestick patterns are the analysis based generally on the Sakata's Five Law, or somehow originating from it. There are two applications in the law, one for daily and the other for a weekly chart, which has a different definition. The daily candlesticks pattern work better on the futures. It is again because of speed. The futures has a short trend cycle white the stocks is longer.*

**8. Which candle patterns seem to work best for you? Can you list your 10 favorite patterns?**

*Your question is too straightforward, even though it might be scientific approach to research, so it is awfully difficult to answer it. You have to understand that the candle pattern analysis is originating from man's experience in trading, and that is a mix of market tendency with the human psychology expressed in the pattern. There is no scientific logic at all.*

*Approaching from a statistic viewpoint and supposing there were 100% perfect patterns, if it comes once a year, or about one every three years, nobody can keep watching to see it and catch it. It must be based on such a daily analysis, repeating tedious business. There is, also, no guarantee that a pattern that showed 100% success in the past will work well repeatedly in future. In statistical speaking, the number of the sample is the important factor, and so it cannot be compared with others in a different number of sampling.*

*I would like to see a research report that will be able to do by your software, or will be done by somebody else. Again, there will be all different results from each software, even using exactly the same data, because of the definition used by every software program. They will each be a little bit different in defining the patterns, along with the definition of filtering to define it. So any such research report should be with a note within this program and within that program, not as a candle pattern itself. If is a matter of the pattern quality inside the software rather than the system quality.*

*In conclusion, I should say it always depends on how it is used, in conjunction with others, and market conditions such as how many new highs or new lows are included, but not by the candlestick pattern itself. Again, the candle pattern is one of the analysis tools.*

**9. Which candle patterns do you think are not very good? How about a list?**

*Again, my answer will be the same as the above explained. It depends upon the market condition and the price level and so on.*

**10. Do you trade or make timing decisions based solely on candle patterns or do you use them in conjunction with other technical indicators?**

*Of course I use the candles pattern in conjunction with other technical indicators. As you know there is no perfect technical analysis method by itself, and again the candlestick pattern is also one of them covering some part of the 360 degrees that must be defended. The daily candlestick pattern analysis is, however, good with futures as one of the timing tools. Again, there is nothing that covers all the degrees needed for technical analysis.*

*It is my intention to make a mark in trading by the number of contracts in opening positions. Depending upon the market condition, that requires the guts, too, which is another of the factors required. One contract each time without the accent will never let you make money. This is one reason why I am not interested in any of the valuable factors of optimizing automated trading systems. They seem to be only playing the game for fun, so I don't like it. Everybody who wants to make money should be aware of no easy money anywhere in the world, unless you are lucky or originated from a son of a king.*

Author's Note: Mr. Hikita is referring to trading multiple contracts when the candle signals are supported. Also, he stressed the importance of using the candle pattern signal to assist in opening and closing of position, not necessarily for reversing positions only.

**11. Which indicators have you found that work well with candle patterns?**

*I have to emphasize, this time, that it depends upon the market condition and the price level which indicator is good to use with the candle patterns. I feel, however, that stochastic %D works fairly well in general, if you can correctly count the cycles and confluence/convergence on different cycles generated by %D. And, pinpointing tops and bottoms using a combination of the stochastic oscillator seems good.*

**12. Candlestick analysis is growing rapidly in the United States. Do you think that it is just a fad or do you think candle analysis is here to stay?**

*I suppose it is not a fad and will stay long in the States. Because this way of expression of the market has much advantage in comparing it to the bar charts, so that it is easier to understand the daily price change. There is also another good point. For instance it has a open price mark, which we understand is an important factor to read the market. Also, it is easy to know by one quick look at the candle which way the market moved during the day. Since each pattern has a deep meaning similar to Gann analysis, it will last a long time within traders who are interested in the philosophy behind the patterns.*

**13. What advice would you offer to Western traders abut candlestick analysis?**

*To understand the candle patterns you should understand the philosophy inside and behind each pattern. Since it is not a perfect technique, as is the same case with others, it is also important not to depend solely on the pattern itself, but use it in conjunction with the others based on a logically established method. The candle pattern analysis is one of the analysis methods that was built up by human impressions and expressed by image form the combination of the pattern based on history. Beyond a maximum possible technical analysis, there is another world of discipline of mental power, that is to establish your philosophy.*

*The candle patterns must be believed in. If you get signal, you must execute or follow the market very closely. Stay in touch with each candle signal. If you become disconnected, the psychology behind candle pattern will not work well.*

*Once you establish your trading policy, whatever you can believe based on the above explanations, you will not make a big mistake. You will be aware of mistakes in advance within an acceptable level of damage, as long as you are employing a proper trend analysis. If you have this policy, you will then not be disappointed by any accident and will be able to understand the way the market is wrong, instead of you and your policy, in the case of the market being against you.*

## FINAL NOTE

As you can see from this interview, Mr. Hikita thinks that the separation of candlestick charting and candle pattern analysis is important. Also, one cannot forget the underlying psychology behind each candle pattern. These are insights into the minds of the traders and speculators that move the market every day.

Mr. Hikita always referred to his trading analysis as dancing with the trend. This concept is not new to technical analysis. However, many traders must graduate from the school of bitter experience before they realize its importance.

# Appendix B: Derivative Charting Methods

Candlestick charting has produced a number of derivative charting and analysis methods. The appeal of candlestick charts, as a method of plotting market data, is that they visually help to interpret the market. Your brain can quickly assimilate the information because it is displayed so consistently well. A new charting method, called CandlePower charting, adds a new dimension to candlestick charts: volume. CandlePower is a trademark of N-Squared Computing, now North Systems, Inc., the originator of the concept.

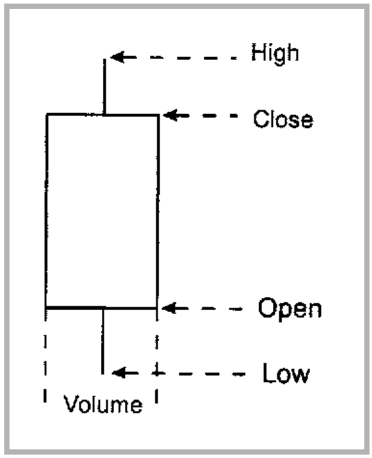
## CANDLEPOWER CHARTING

CandlePower Charting is another visually appealing charting technique that combines the power of Japanese candlesticks and volume. Most charting software packages have chosen to use the term CandleVolume instead of CandlePower for this charting method.

Typical charting (whether bar or candlesticks) shows the price action on the vertical scale and time on the horizontal scale (see Chapter 1). Volume is usually depicted as a histogram plot under the prices. Two significant pieces of information are generated each time a transaction occurs between a buyer and a seller. One of these, price change, we tend to react to emotionally, and the other, volume, we largely ignore. Volume is certainly a more valuable tool to market analysis than is usually acknowledged. Richard Arms claims that price tells us what is happening and volume tells us how it is happening. Joseph Granville built an entire career analyzing and writing about volume.

Volume, during most phases of the market, will precede prices. This is a hotly contested remark, but watching both price and volume can only enhance your timing and decision making. Simply said, when price and volume are increasing, it is considered bullish. Likewise, when prices and volume are decreasing, it is considered bearish.

**Figure B-1**




As shown in Figure B-1, the body of a CandlePower day, just like a candlestick, is made up of the difference between the open and close. The color of the body and the shadows also follow the same convention used in Japanese candlestick charting. The difference is that the width of the body is a reflection of the volume for that day. A day with large volume will be a wider candlestick body than a day with less volume. On a chart, it is easy to pick the largest volume day by finding the widest body. Likewise, the day with the smallest volume will be the thinnest body.

Many candle patterns can have added importance when volume is introduced. For instance, a bullish Engulfing Day will be even more bullish if the second day also is accomplished by larger volume. A Morning Star pattern can be judged more successful if there is excessive volume on the last day.

## Examples

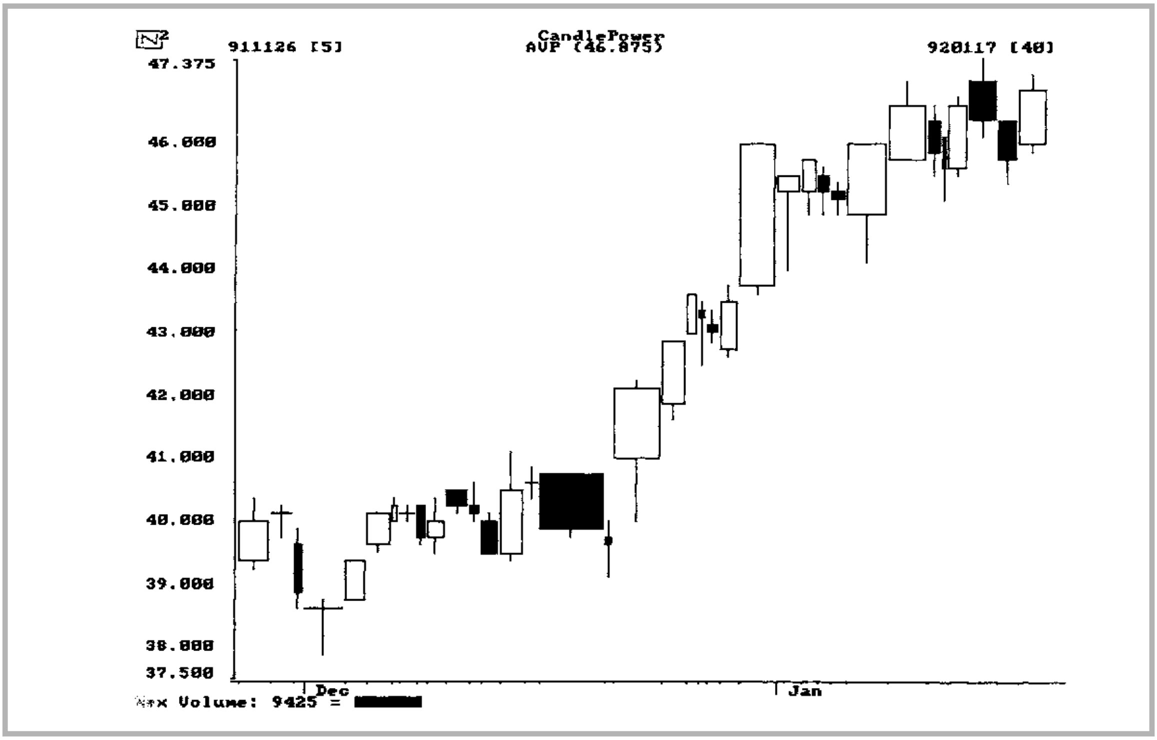



**Figure B-2**

In Figure B-2, the CandlePower chart on Avon products (AVP), notice how the upmove contains large white candle lines. These wide lines show that the upmove is fully supported by volume. Once the large white days dry up, the move has probably run its course.

The large black day in the chart of Bell South (BEL) shows a classic volume blow-off day (Figure B-3). After a good upmove, the volume starts to dry up. Then, in one day, prices explode to the upside, but close near their lows on very large volume. A few days into the decline, a three-day rally is terminated with a gap down. Then the decline continues.

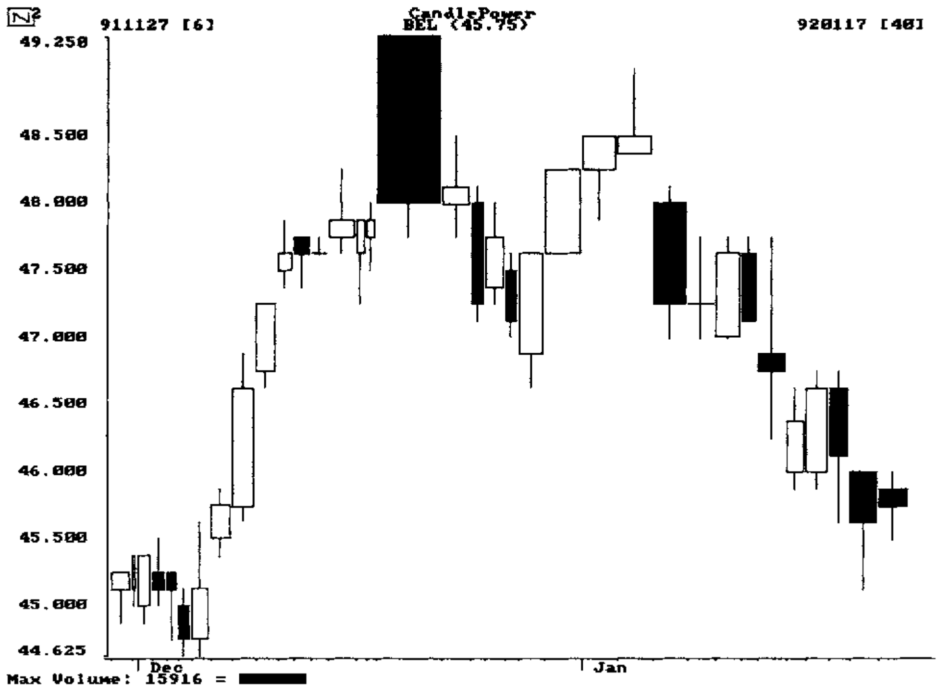



**Figure B-3**

In Figure B-4, the chart of Citicorp (CCI), notice how each turning point in the market is accomplished by large volume. The market bottomed with a large black day, then rallied. The rally stopped with a large white day, then went sideways until the next large white day. From there it gapped up twice, followed by two days of indecision (Spinning Tops), each with large volume. Here again, Spinning Tops with large volume support the indecision on the marketplace. Large amounts of stock changed hands, but no side took the leadership.

The bottom reversal toward the end of December on the chart on Litton (LIT) shows continually large-volume days (Figure B-5). In

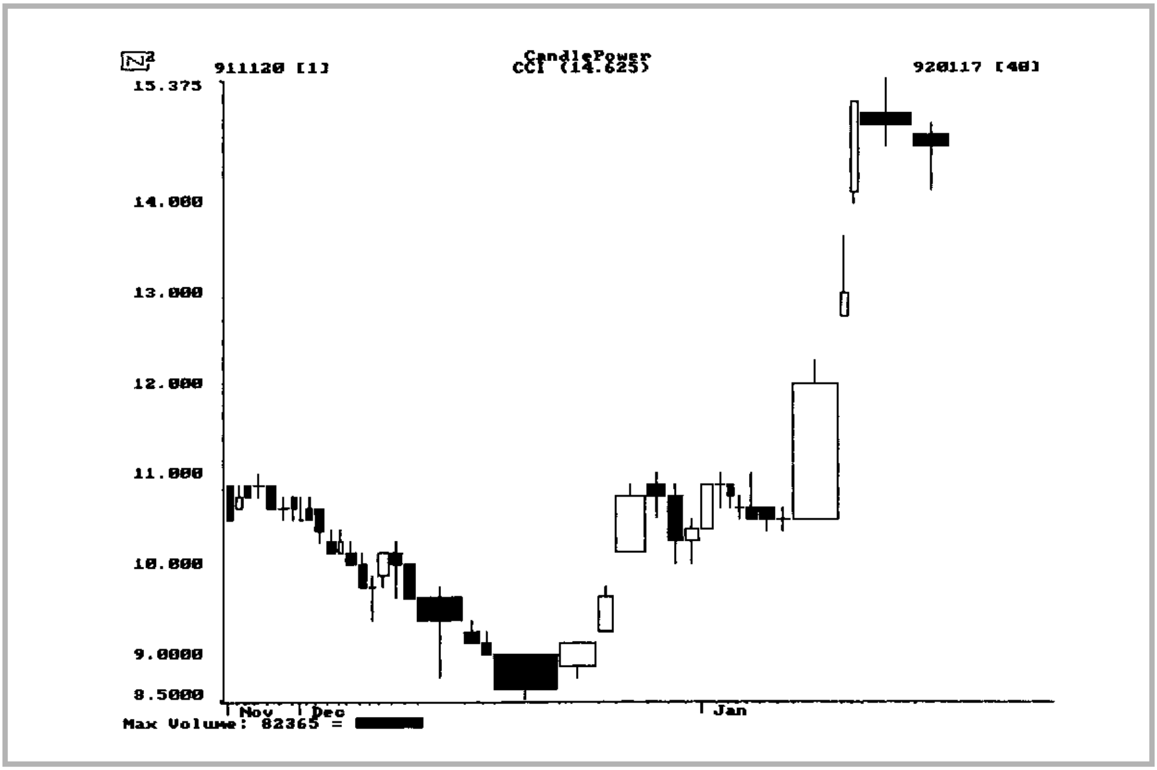



**Figure B-4**

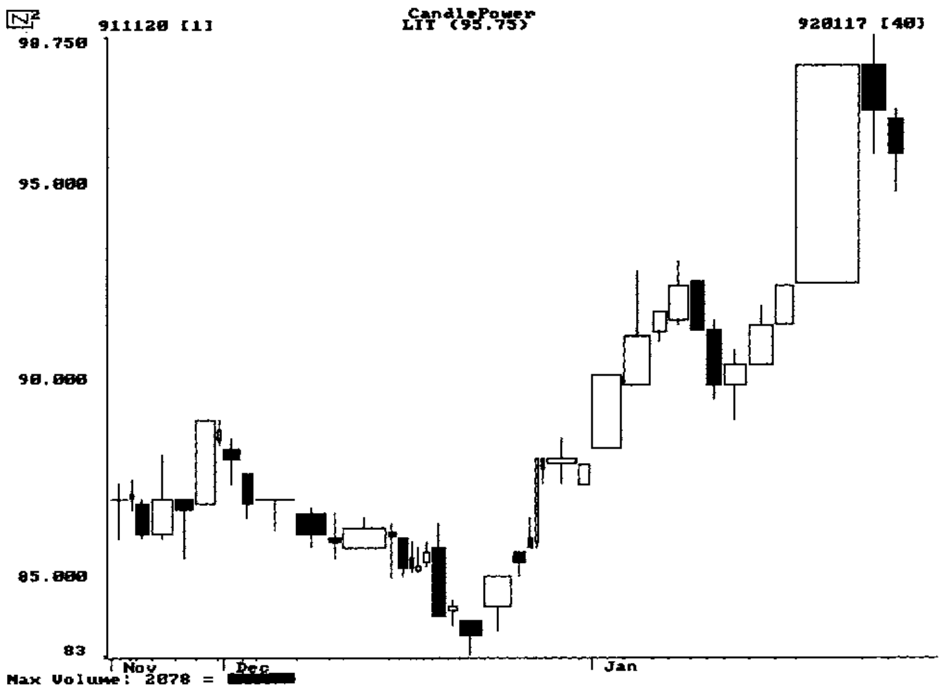



**Figure B-5**

fact, if it were not for the small white Spinning Top day, a Morning Star bullish reversal pattern would have represented the bottom. Here is another example where volume increasing throughout a pattern will add to its significance.

Figure B-6, the last example of CandlePower charting, shows more data (volume maximum has been reduced), so the richness of the charting method can be fully appreciated.

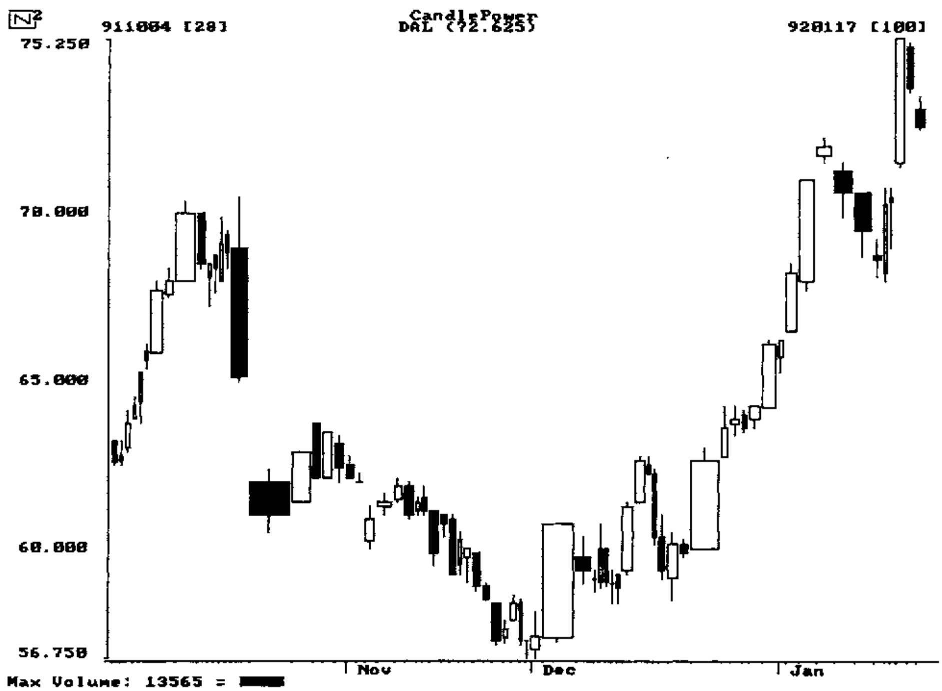



**Figure B-6**

## CONDENSED CANDLEPOWER CHARTING

Another twist is added to CandlePower charting with Condensed CandlePower charting. In this approach, the time element is returned to the horizontal axis. The variable-width candlestick bodies are still displayed accurately, but they overlap. Each new day starts at a uniform distance (time) interval. This method of charting displays more data at once, while still giving the large-volume days visibility. Individual candle patterns are more difficult to see, though.


**Figure B-7**

Areas of volume congestion can be easily spotted using condensed CandlePower Charting. Trendlines used on this type of chart would also reflect the volume component.

The data used for the Condensed CandlePower chart in Figure B-7 is the same as in the last example of CandlePower Charting. This was done intentionally, so you could easily see the difference in charting methods.

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Author's note: The above reference was an excellent source for many of the candle patterns. The name Fuurin Kazan may be translated as Fu—the speed like wind, Rin—that quietness like forest, Ku—that battle like fire, and Zan—that immobile positions like mountains. This idiom originated from the Chinese battle strategy the Honma was said to have read.

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## ABOUT THE AUTHOR

Since June, 2005, Gregory L. Morris has been a portfolio manager for PMFM, Inc., managing their PMFM Core Advantage Portfolio Trust mutual fund. From December, 2003 to May, 2005, Greg had served as a Trustee and advisor to the MurphyMorris ETF Fund. He also served as Treasurer and Chief Executive Officer of MurphyMorris Money Management Co, the Advisor to the Fund. Greg has written his second book with McGraw-Hill; *The Complete Guide to Market Breadth Indicators,* a book introducing market breadth for investors. Since October, 2002, Greg (also President of G. Morris Advisors, Inc.) has been working with StockCharts.com, the leading web-based charting service. He is providing consulting services in marketing, financial development, and business alliances to StockCharts.com. From 1996 to 2002, Greg was CEO of MurphyMorris.Inc., the leading provider of Web-based market analysis tools and commentary, with his partner, John Murphy, a former CNBC analyst. MurphyMorris, Inc. was acquired by StockCharts.com, Inc. in October, 2002. In 1999, Greg and three associates started MurphyMorris Money Management Co. to manage assets for individuals. This focus was later changed to address the firm becoming the Advisor to the MurphyMorris ETF Fund in January, 2004, and later merged into the PMFM family of funds. From 1994 to 1996, he was President of

G. Morris Corporation, a Dallas, Texas headquartered business that provided products and services for investors and traders. His lead product was a series of over 450 Indicators & Trading Systems that supported most Windows-based technical analysis software packages. From 1993 to 1994, Greg was part of MarketArts, Inc. which launched the first Windows-based technical analysis software program, "Windows on Wall Street." In 1992 he published a book on Japanese candlestick analysis called *CandlePower,* now available in soft cover as *Candlestick Charting Explained* (McGraw-Hill). Widely recognized as an expert on candlesticks and the developer of candlestick filtering, he has lectured around the world on the subject. In May, 1989, he was awarded "outstanding alumni for 1989" from Pratt County College. From 1982 until 1993, he worked in association with N-Squared Computing, producing over 15 technical analysis and charting software titles, many of which are actively used today. Greg retired in 2004 after 26 years as a Captain with a major airline. He graduated from the University of Texas at Austin in 1971, has a BS degree in Aerospace Engineering, has authored numerous investment-related articles, and appeared many times on Financial News Network (FNN). From 1971 to 1977, he was a Navy F-4 fighter pilot aboard USS Independence who was selected for, and graduated from, the Navy Fighter Weapons School known as Top Gun. Married with two adult children (both engineers) and two stepchildren, Greg and his wife, Laura, live and office in the mountains of North Georgia.

# Index

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# Special Offer: CandlePower 6 Pro Software

Almost all of the tables of candle pattern statistics in this book were generated using the *CandlePower 6 Pro* software. This is a complete end-of-day candlestick charting and analysis program that will allow you to scan your data to automatically identify and chart any of the patterns described herein. In addition the program includes many popular technical indicators which can be used as a "filter" to obtain more reliable candle signals. A complete description of the program's capabilities and examples of its functions can be seen at www.ChartAndScan.com. The program is compatible with all the major end-of-day data formats.

North Systems, Inc, the developer of this software offers readers of this book a 15% discount on purchasing the *CandlePower 6 Pro* program by simply mentioning this book and this code: CCECP6.

"This is a very powerful program and the perfect software companion for this latest edition of *Candlestick Charting Explained*. I recommend it highly." —Greg Morris

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Greg Morris maintains a Web site at www.candlesexplained.com, where he offers pattern scans, charts, and analysis.

## ABOUT RYAN LITCHFIELD

Ryan Robert Litchfield has been training traders to control emotions and manage trading risk for more than seven years. He developed the X Factor Option Graphing software (the most advanced options graphing tool) as well as countermoves and countervolatility strategies for option trading. He created Market Mind Fields™, which greatly expands the understanding of how to control the market influence on trader's psyche. He established the Traders Forge™ trading school, where traders train in real-world conditions to gain and sharpen their trading skills. His Bracket Trading™ system is practiced around the world to control risk and maximize profits. He has written articles for national trading magazines and has produced many training DVDs and CDs on market skills like charting skills, pattern recognition, candlestick charting and spread trading. Mr. Litchfield currently trains students on the Internet in interactive classrooms as well as monthly Two Day Traders Forge workshops around the United States and Europe. He is a committed student of the defensive martial art of Aikido, where he draws many analogies and parallels to trading. His interest and expertise in Japanese candlesticks came from his penchant to study, learn, push beyond the status quo, and pass those insights onto his students.