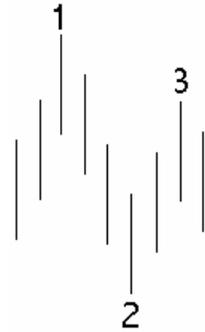


THE LAW OF CHARTS

WITH INFORMATION NOT SHOWN IN OUR PREVIOUS COURSE MANUALS

1-2-3 HIGHS AND LOWS

A typical 1-2-3 high is formed at the end of an up-trending market. Typically, prices will make a final high (1), proceed downward to point (2) where an upward correction begins; then proceed upward to a point where they resume a downward movement, thereby creating the pivot (3). There can be more than one bar in the movement from point 1 to point 2, and again from point 2 to point 3. There must be a full correction before points 2 or 3 can be defined.

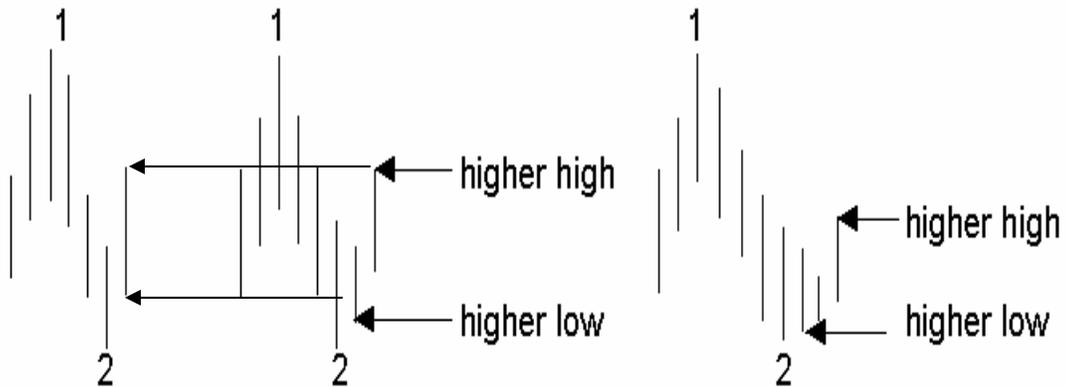
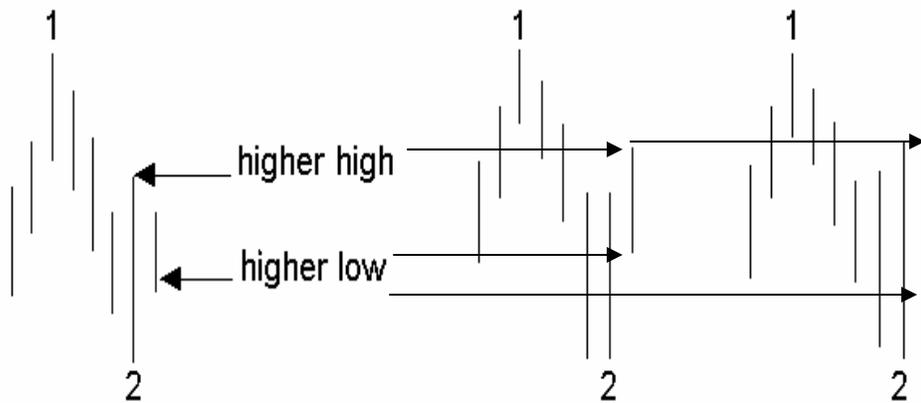


A number 1 high is created when a previous up-move has ended and prices have begun to move down.

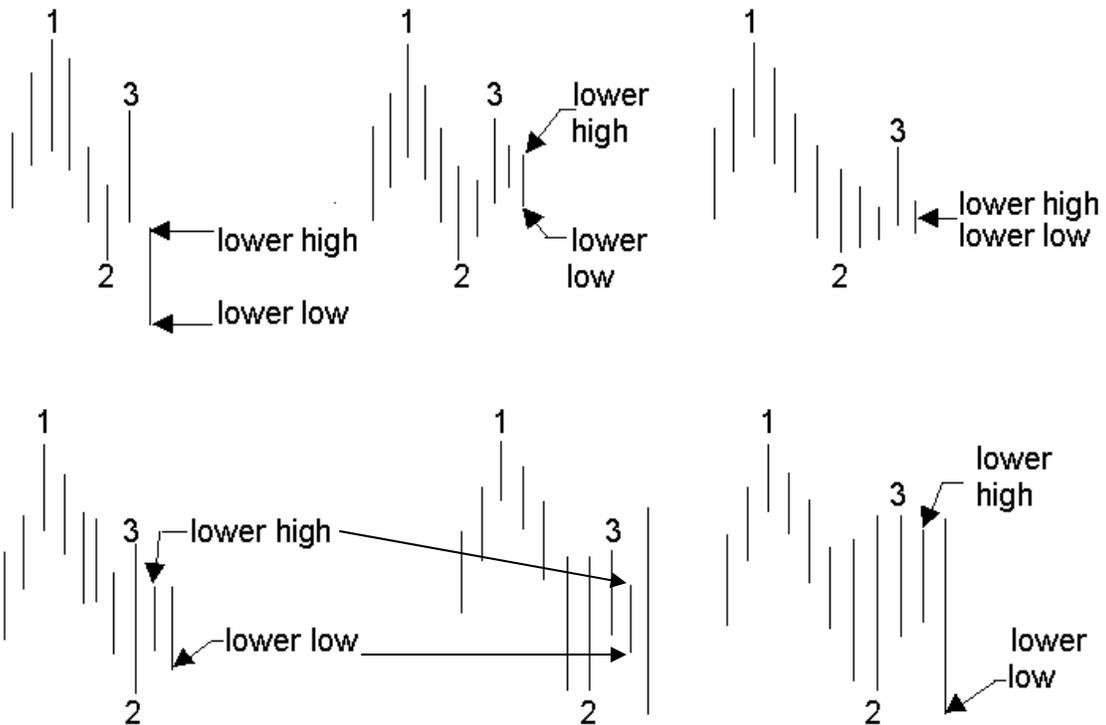
The number 1 point is identified as the last bar to have made a new high in the most recent up-leg of the latest swing.



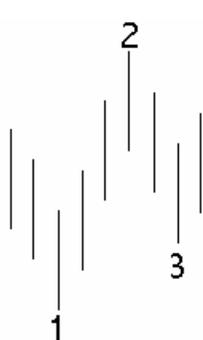
The number 2 point of a 1-2-3 high is created when a *full* correction takes place. Full correction means that as prices move up from the potential **number 2 point**, there must be a single bar that makes both a higher high and a higher low than the preceding bar *or* a combination of **up to three bars** creating both the higher high and the higher low. The higher high and the higher low may occur in any order. Subsequent to three bars we have congestion. Congestion will be explained in depth later on in the course. It is possible for both the number 1 and number 2 points to occur on the same bar.



The number 3 point of a 1-2-3 high is created when a full correction takes place. A full correction means that as prices move down from the potential number 3 point, there must be at least a single bar, but not more than two bars that form a lower low and a lower high than the preceding bar. It is possible for both the number 2 and number 3 points to occur on the same bar.



Now, let's look at a 1-2-3 low.

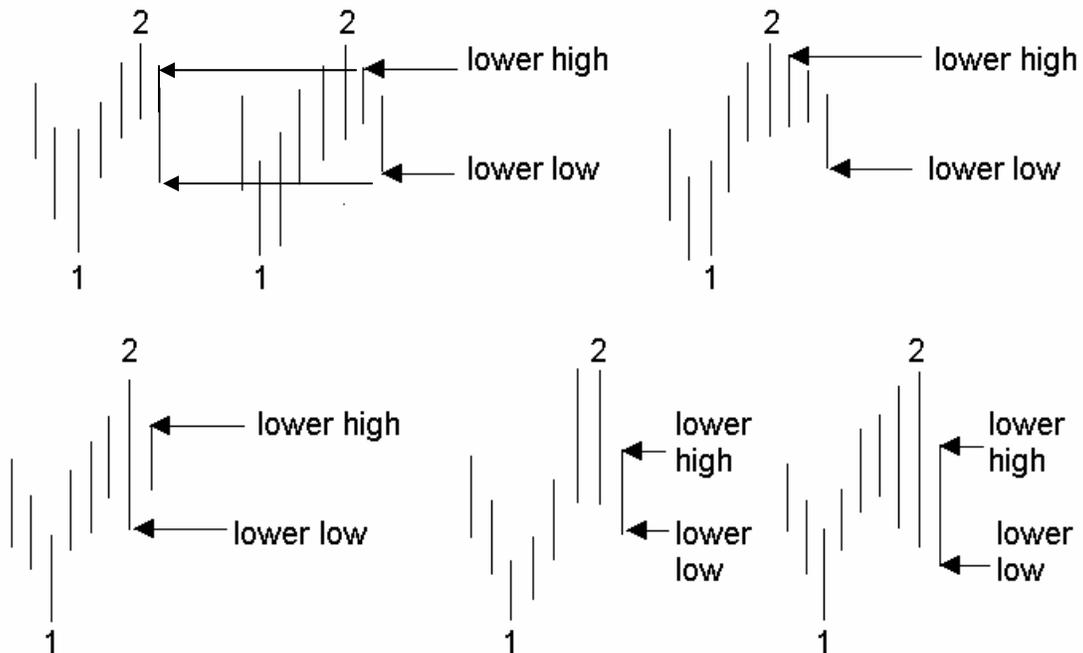


A typical 1-2-3 low is formed at the end of a down-trending market. Typically, prices will make a final low (1); proceed upward to point (2) where an downward correction begins; then proceed downward to a point where they resume an upward movement, thereby creating the pivot (3). There can be more than one bar in the movement from point 1 to point 2, and again from point 2 to point 3. There must be a full correction before points 2 or 3 can be defined.

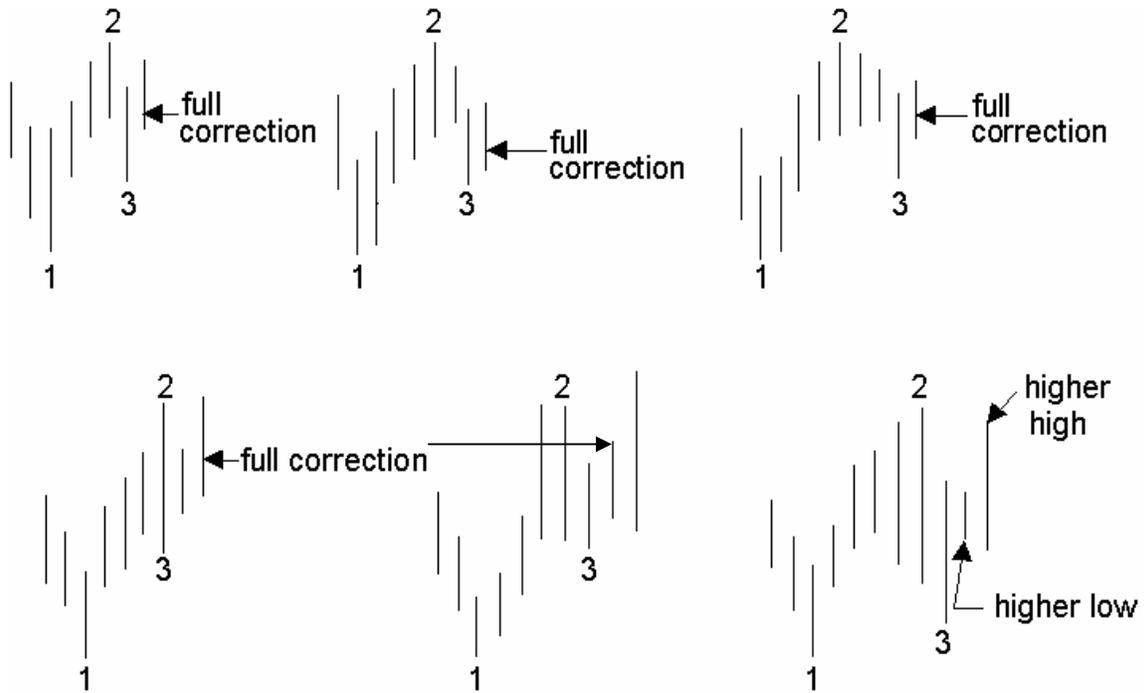
A number 1 low is created when a previous down-move has ended and prices have begun to move up. The number 1 point is identified as the last bar to have made a new low in the most recent down-leg of the latest swing.



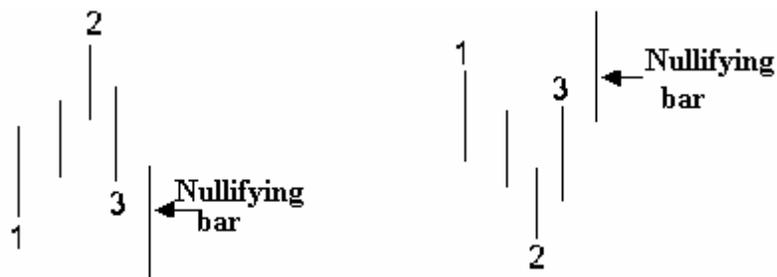
The number 2 point of a 1-2-3 low is created when a *full* correction takes place. Full correction means that as prices move down from the **potential number 2** point, there must be a single bar that makes both a lower high and a lower low than the preceding bar, or a combination of **up to three bars** creating both the lower high and the lower low. The lower high and the lower low may occur in any order. Subsequent to three bars we have congestion. It is possible for both the number 1 and number 2 points to occur on the same bar.



The number 3 point of a 1-2-3 low exists when a full correction takes place. A full correction means that as prices move up from the potential number 3 point, there must be at least a single bar, but not more than two bars, that form a higher low and a higher high than the preceding bar. It is possible for both the number 2 and number 3 points to occur on the same bar.



The entire 1-2-3 high or low is nullified when any price bar moves prices equal to or beyond the number 1 point.

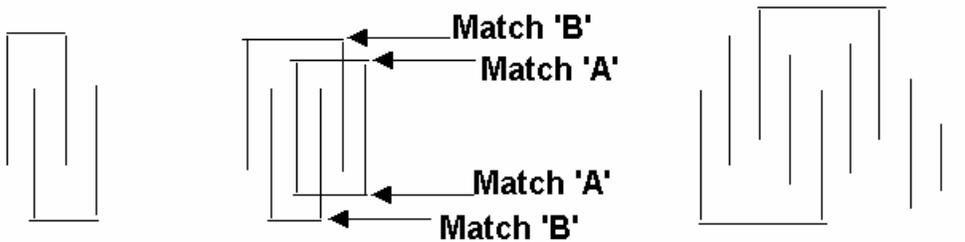


Ledges

A LEDGE CONSISTS OF A MINIMUM OF FOUR PRICE BARS. IT MUST HAVE TWO MATCHING LOWS AND TWO MATCHING HIGHS. THE MATCHING HIGHS MUST BE SEPARATED BY AT LEAST ONE PRICE BAR, AND THE MATCHING LOWS MUST BE SEPARATED BY AT LEAST ONE PRICE BAR.

The matches need not be exact, but should not differ by more than three minimum tick fluctuations. If there are more than two matching highs and two matching lows, then it is optional whether to take an entry signal from either the latest price matches in the series (Match 'A') or those that represent the highest and lowest prices of the series (Match 'B'). [See below]

A LEDGE CANNOT CONTAIN MORE THAN 10 PRICE BARS. A LEDGE MUST EXIST WITHIN A TREND. The market must have trended up to the Ledge or down to the Ledge. The Ledge represents a resting point for prices, therefore you would expect the trend to continue subsequent to a Ledge breakout.



TRADING RANGES

A Trading Range (See below) is similar to a Ledge, but must consist of more than ten price bars. The bars between ten and twenty are of little consequence. Usually, between bars 20 and 30, i.e., bars 21-29, there will be a breakout to the high or low of the Trading Range established by those bars prior to the breakout.

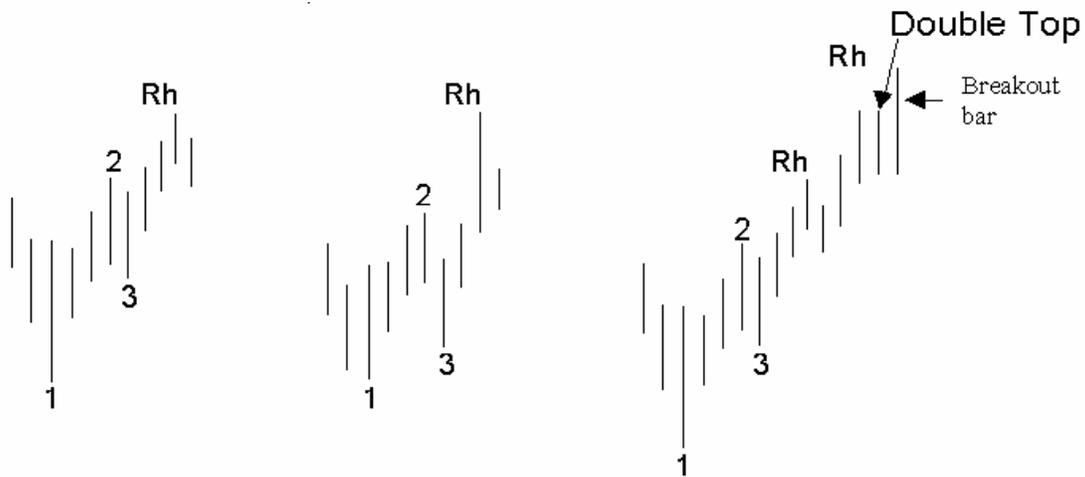


ROSS HOOKS

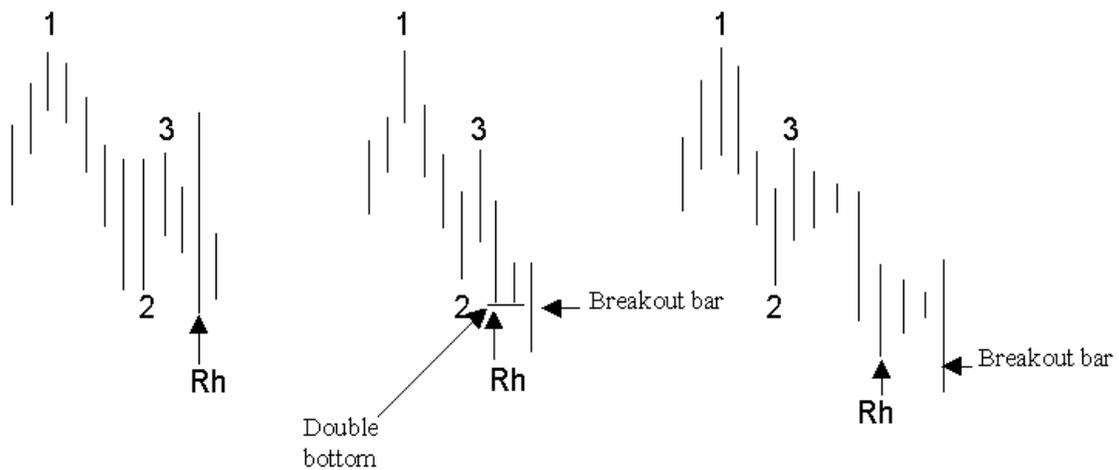
A Ross Hook is created by:

1. The first correction following the breakout of a 1-2-3 high or low.
2. The first correction following the breakout of a Ledge.
3. The first correction following the breakout of a Trading Range.

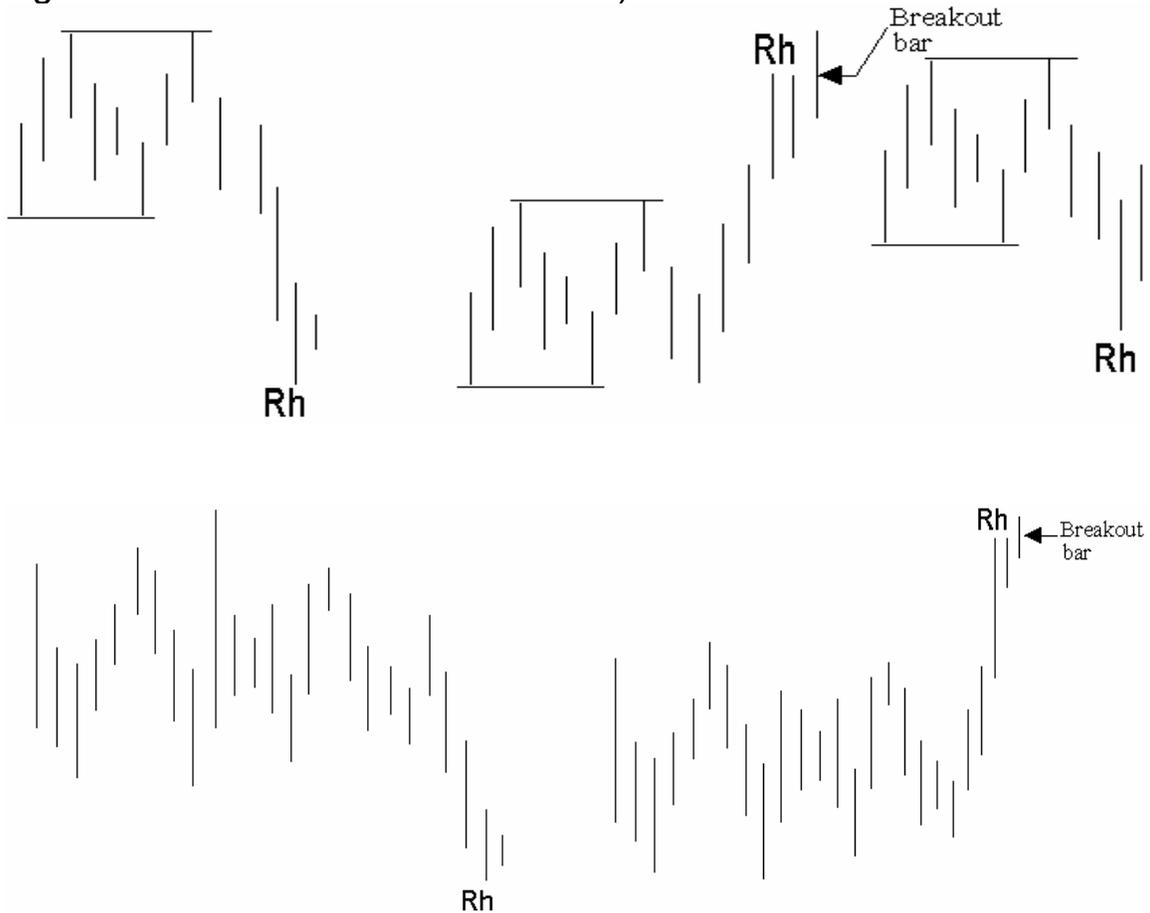
In an up-trending market, after the breakout of a 1-2-3 low, the first instance of the failure of a price bar to make a new high creates a Ross Hook. (A double high/double top also creates a Ross Hook).



In a down-trending market, after the breakout of a 1-2-3 high, the first instance of the failure of a price bar to make a new low creates a Ross Hook. (A double low/double bottom also equals a Ross Hook).



If prices breakout to the upside of a Ledge or a Trading Range formation, the first instance of the failure by a price bar to make a new high creates a Ross Hook. If prices breakout to the downside of a Ledge or Trading Range formation, the first instance of the failure by a price bar to make a new low creates a Ross Hook (A double high or low also creates a Ross Hook).



We've defined the patterns that make up the Law of Charts. Study them carefully.

What makes these formations unique is that they can be specifically defined. The ability to formulate a precise definition sets these formations apart from such vague generalities as "head and shoulders," "coils," "flags," "pennants," "megaphones," and other such supposed price patterns that are frequently attached as labels to the action of prices.

TRADING IN CONGESTION

Sideways price movement may be broken into three distinct and definable areas:

1. Ledges — consisting of no more than 10 price bars
2. Congestions — 11-20 price bars inclusive
3. Trading Ranges — 21 bars or more with a breakout usually occurring on price bars 21-29 inclusive.

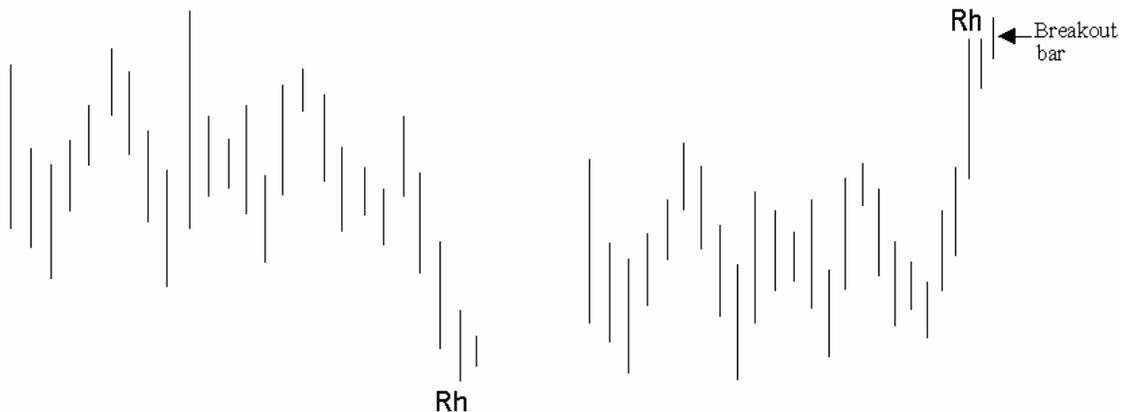
Trading Ranges consisting of more than 29 price bars tend to weaken beyond 29 price bars and breakouts beyond 29 price bars will be:

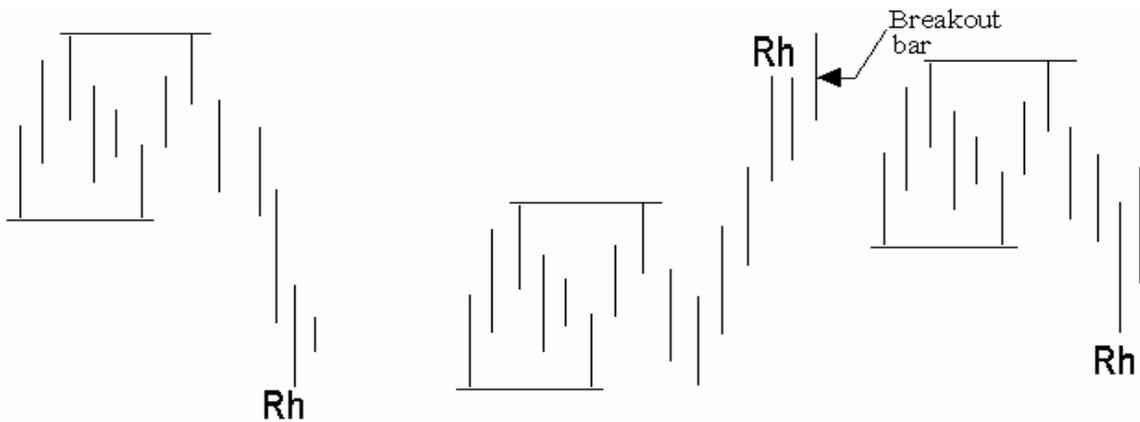
- Relatively strong if the Trading Range has been growing narrower from top to bottom (coiling).
- Relatively weak if the Trading Range has been growing wider from top to bottom (megaphone).

We have written considerable material about breakouts from Ledges, primarily that since by definition, Ledges must occur in trending markets, the breakout is best traded in the direction of the prior trend, once two matching highs and two matching lows have taken place.

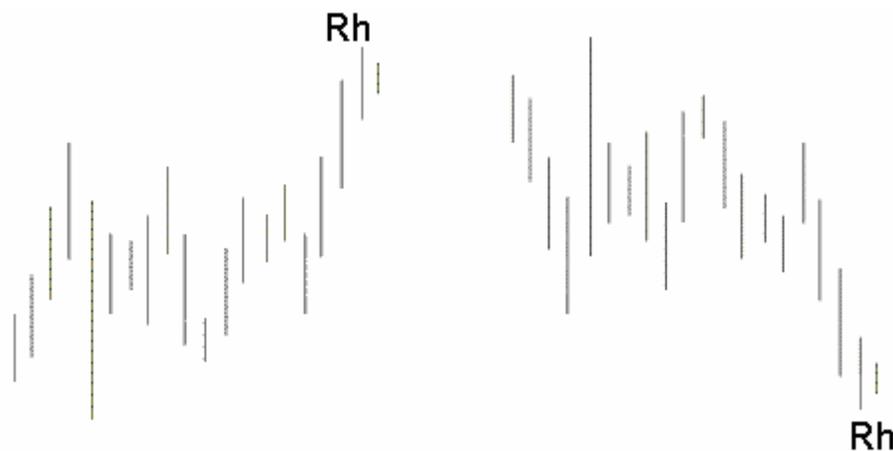
The next discussion deals primarily with Congestions and Trading Ranges:

Under the topic of the Law of Charts, we have defined the first correction following the breakout of a Trading Range or Ledge as being a Ross Hook.





The same is true after a breakout from Congestion, i.e., the first retracement (correction) following a breakout from Congestion also constitutes a Ross Hook.



A problem most traders have in dealing with sideways markets is determining when prices are no longer moving sideways and have indeed begun to trend. Apart from an outright breakout and correction which defines a Ross Hook, how is it possible to detect when a market is no longer moving sideways, and has begun to trend?

In other writings, we have stated that the breakout of the number 2 point of a 1-2-3 high or low formation 'defines' a trend, and that the breakout of the point of a subsequent Ross Hook 'establishes' the trend previously defined.

1-2-3 high and low formations may be satisfactorily traded using the Trader's Trick entry. All Ross Hooks may be satisfactorily traded using the Trader's Trick entry.

However, while a 1-2-3 formation occurring in a sideways market still defines a trend, the 1-2-3 formation, when it occurs in a sideways market, is not satisfactorily traded using the Trader's Trick. This is because Congestions and Trading Ranges are usually composed of opposing 1-2-3 high and low formations.

If a sideways market has assumed an \wedge formation, or is seen as a \vee formation, these formations will more often than not consist of a definable 1-2-3 low followed by a 1-2-3 high, or a 1-2-3 high followed by a 1-2-3 low. In any event, the breakout of the number 2 point is usually not a spectacular event, certainly not one worth trading.

What is needed is a tie-breaker. The tie-breaker will not only increase the likelihood of a successful trade, but will also be a strong indicator of the direction the breakout will most probably take. That tie-breaker is the Ross Hook.

When a market is moving sideways, the trader must see a 1-2-3 formation, followed by a Ross Hook, all occurring within the sideways price action. The entry is then best attempted by using the Trader's Trick ahead of a breakout of the point of the Ross Hook.

Of course, nothing works every time. There will be false breakouts. However, on a statistical basis, a violation of a Ross Hook occurring when price action is sideways, consistently results in a low risk entry with a heightened probability for success. Since the violation of a Ross Hook occurring in a sideways market is an acceptable trade, then an entry based upon a Trader's Trick entry ahead of the point of the Ross Hook being violated offers an even better entry.

POINTS OF CLARIFICATION FOR 1-2-3 FORMATIONS

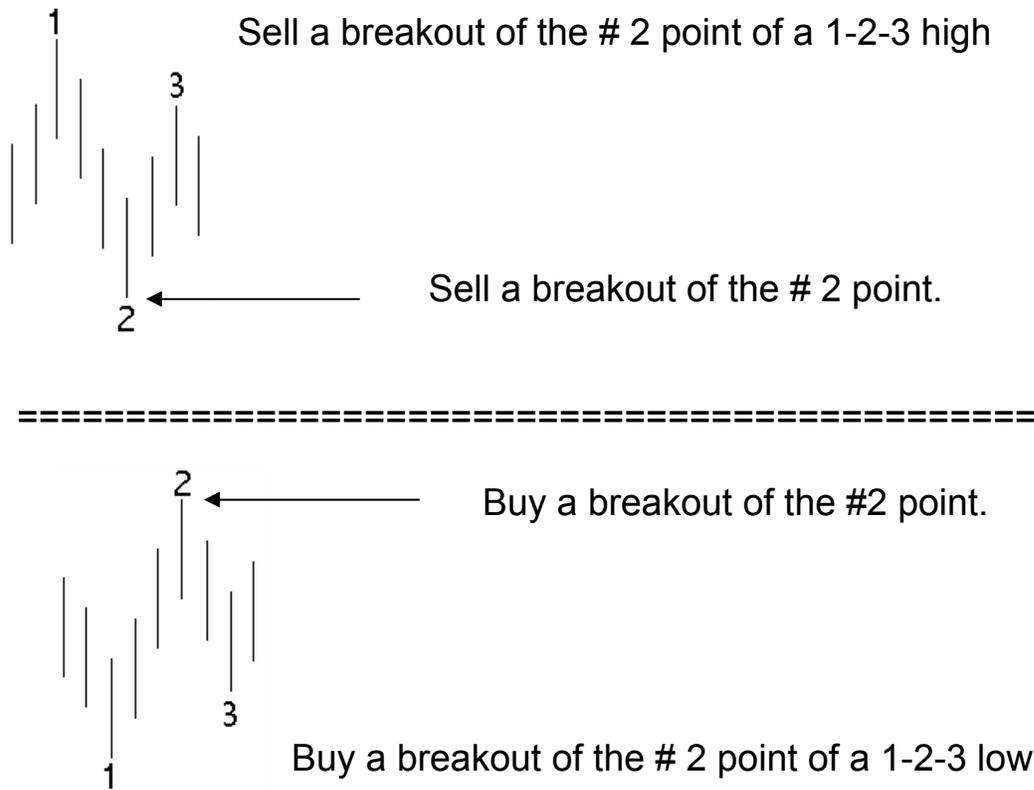
We have had a number of people ask about the trading of the 1-2-3 high or low formation.

They ask, "When do you buy and when do you sell?"

Although we prefer to use the Trader's Trick entry whenever possible (See Appendix B), the illustration should be of help when not using the Trader's Trick.

The Breakout of a 1-2-3 High Or Low

Let's illustrate what a 1-2-3 is:



Note: The #3 point does not come down as low as the #1 point in a uptrend, or as high as the #1 point in a down trend.

We set a mental or computer alert, or both, to warn us of an impending breakout of these key points. We will not enter a trade if prices gap over our entry point. We will enter it only if the market trades through our entry point.

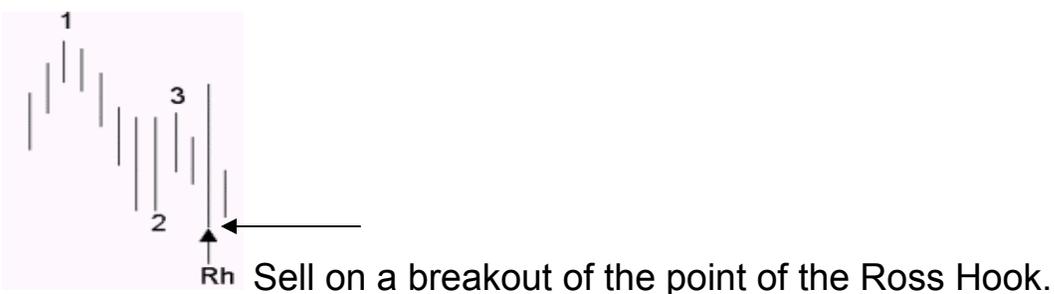
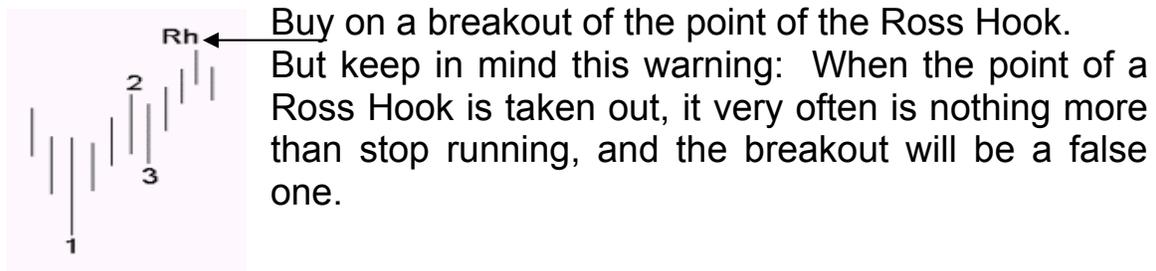
1-2-3 Highs and Lows come only at market turning points that are in effect major or intermediate high or lows. We look for 1-2-3 lows

when a market seems to be making a bottom, or has reached a 50% or greater retracement. We look for 1-2-3 highs when a market appears to be making a top, or has reached a 50% or greater retracement.

Exact entry will always be at or prior to the actual breakout taking place.

POINTS OF CLARIFICATION FOR ROSS HOOKS

We are asked the same question with regard to the Ross Hook as we are about 1-2-3 formations: “When do I buy, and when do I sell?” Our answer is essentially the same as for the 1-2-3 formation. Although we prefer entry via the Trader’s Trick (See Appendix B), such entry is not always available. When the Trader’s Trick entry is not available, enter on a breakout of the point of the Ross Hook itself.



Some comments about the series of graphs that follow might clear up a few questions:



This is important! Prices make a double top at the last Ross Hook shown, and then retreat. Many professional traders would go short as soon as they felt the double top was in place.

Notice that we are able to connect a True Trend line from the point of the lower Ross Hook to the correction low that gave us the #3 point, and then to the correction low that created the double top Ross hook.

That leaves us with a 1-2-3 low and a Ross Hook in the event of a breakout to the upside. It also leaves us with a 1-2-3 high and a Ross hook in the event of a breakout to the downside. A breakout of the double top (Rh) will set us up for any subsequent upside Ross Hooks if prices take out the double resistance area and then later correct.



The double top Ross Hook represents a low risk entry for a short position. However, in this example we will wait for an entry at the violation of the Ross Hook itself. A more advanced trader might wish to go short as prices move away from the double top. This is a low risk trade because a stop can temporarily be placed

above the high. Notice we are saying temporarily. The double top could be a terrible place to have a stop should the insiders engineer a move up to run the stops they know are there.



The Trader's Trick Entry (See Appendix B) would enable us to enter by going long earlier than waiting for the double top Ross Hook to be taken out. The more conservative trade is to use the Trader's Trick entry, figuring that prices will at least test the high as prices move up. The Trader's Trick Entry in this case is just above the third bar of correction.

All or part of the position can be put on at the Trader's Trick Entry point. It's simply a matter of choice. If you want to know what our choice is, it is to place the entire position on at the Trader's Trick Entry.



However, prices continue down and take out the lower Ross Hook. We should have had a resting sell stop below that Ross Hook as well. We can sell short all or part of our position as the lower Ross Hook itself is violated.



We see that prices are plunging. However, we should not be jumping in front of the market at each lower bar, because by the time prices take out the Ross Hook, the market will have already been moving down for four consecutive bars. If you will recall the lessons learned from our section in ELECTRONIC TRADING 'TNT' I on finding the trend while it is still in the birth canal, you know that the market may be getting ready to correct.



Note the intraday correction at the arrow on the right of the chart. An important event has taken place. The intraday correction makes it okay to jump in front of the market. The fact that the market opened, traded above the previous bar's high, and then took out the previous day's low, signifies at least one more good day to be short. If trading intraday, jump in front of the Ross Hook created by the intraday correction. In fact, if trading intraday, and it becomes available, use a Trader's Trick Entry to enter ahead of prices taking out the previous day's low.



We now have an intraday correction followed by a reversal bar. The market is talking! Note the gap open beyond the previous bar's low. Then notice the price action for the remainder of the day. Professional traders will go long on a gap open like that, some of them as soon as possible after the open, and others when prices trade through the open to the upside. When you see a gap open like that in a strongly trending market, take profits. If your guts are under control, take profits and reverse. Most of the time you will be glad you did. In fact, many professionals, if they think the market is beginning to congest, will double up on a gap opening and trade twice as many contracts **against** the trend as they would **with** the trend.

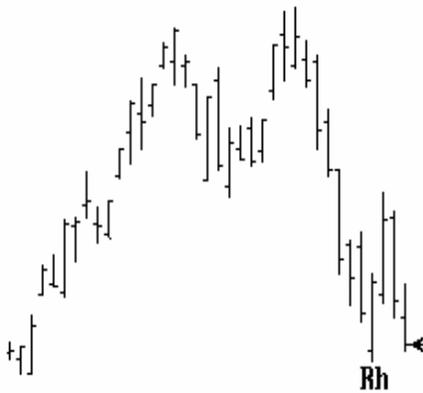


The market was telling us to expect a correction. Were you listening?

When prices are correcting and prices open in the upper part of the previous bar's range, and then move above the previous bar's high, chances are you haven't seen an end to the correction.



This latest price bar places the chart into a 5 bar consolidation area. We'll place a box around that area. This area is considered to be congestion by alternation and is described in Electronic Trading 'TNT' III – Technical Trading Stuff, and in Appendix C of this manual.

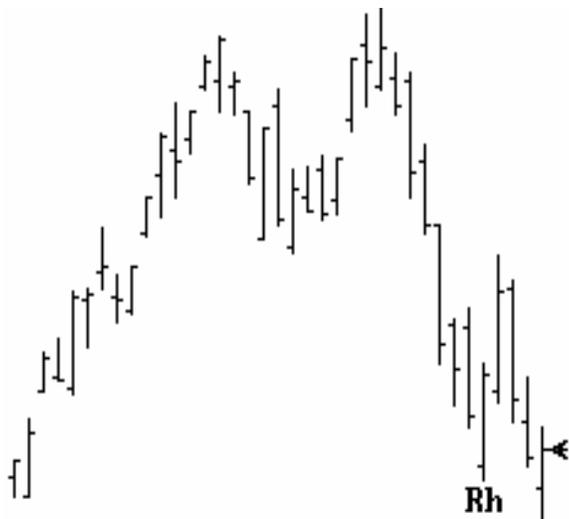


Although not shown, you can picture that a 3x3 moving average of the close, is running through the middle of the 5 bar congestion.

You may recall from ELECTRONIC TRADING 'TNT' III that the 3x3 moving average is a filter for Reverse Ross Hooks. It is also a filter here for the same reasons – we are in a defined congestion by reason of alternation.



Since the trade doesn't pass our filter because of a "gap opening beyond the low of the Rh," we must remove any order to sell a breakout of the Rh. The gap opening below the previous bar's range has brought in a double load of orders from the insiders.

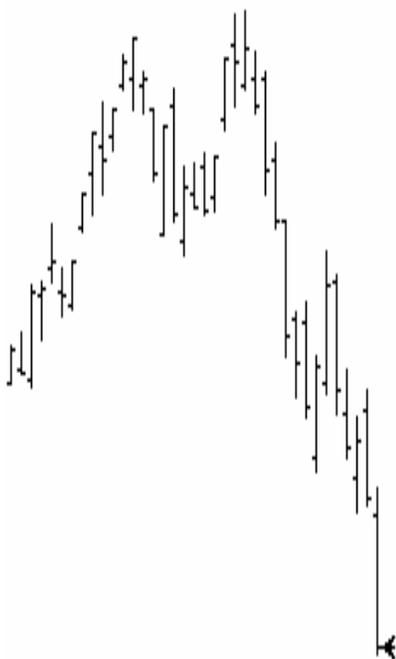


Prices move up on a reversal day. Remember, when the insiders feel that a market is congesting or correcting, they will double their orders on openings that gap beyond the price range of the previous day. This doubling can serve as a filter for our trades, because we can expect the insiders to try to fill the gap. Day traders can use this to trade right along with the insiders who know to expect this type of price action.



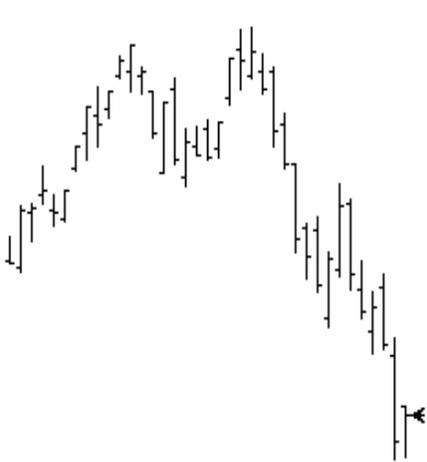
As prices gap past the Rh, and then correct, we can place a sell order below the new Rh.

The following day, we get a gap opening to the upside. This time it is above the high of the previous day. It, too, will bring a double load of sell short orders. This is a correction day and so we can connect some segment lines.



Prices hit our sell stop below the Rh. Our sell stop has been placed one tick below the point of the Rh. We want a violation of the Hook before we will accept entry.

There are many problems with getting filled on a gap opening below our sell stop, the least of which is slippage. Therefore, if at all possible, we do not enter orders until we see where the open occurs. Brokers can be instructed in that manner if you have to use one for the actual placement of your order. On the chart to the left, prices opened exactly one tick below the Rh.



The next price bar makes an unusual close. We must do all we can to protect profits. There is apt to be further correction on the next price bar.

We protect profits by moving our stop one tick above the high of any bar that closes very close to the high when we feel that prices should be continuing to move down.



The correction comes intraday, creating an intraday hook situation. Day traders may have been able to scalp a few ticks of profit here.

Day traders may have been able to profit by selling under the low of the previous day. Any day trader at any time should consider a breakout of the low of the previous day a strong reason to sell short.



The correction by prices on the last bar shown gives us another Rh.



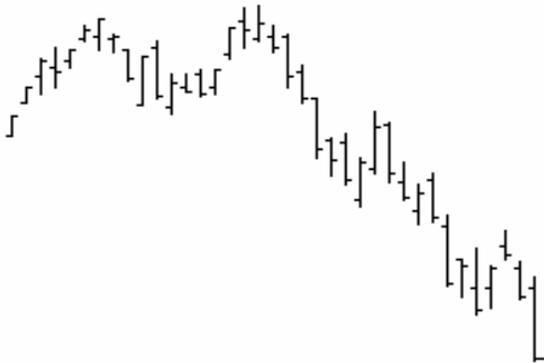
As prices correct, we try to sell a breakout of the low of the correcting bar.

The following comments apply to the chart above and the one below. We may want to put on our entire position but we have only two opportunities. It may be best to put on 2/3 of the position at the higher of the two entry points, and only 1/3 at the hook, if we are given the choice. Once prices start back down, we try for 2/3 immediately. If we still cannot get our position on, then we will have to place the entire position on at the hook. You may recall in a similar situation we looked at the 3x3 moving average of the close and considered it a filter for the trade because the 3x3 was running through a five bar consolidation. In this instance, the 3x3 moving average was still displaying containment of the downtrend.



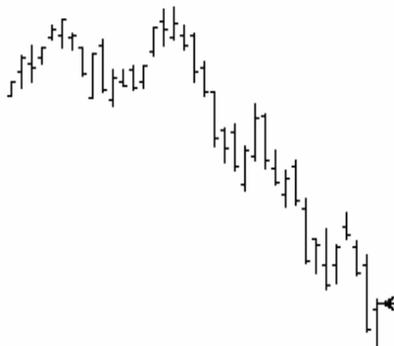
A trade at the low is missed because of the gap opening. We then try to sell a breakout of the next low, as well as the Rh.

Our position is filled at both entry points.



The following comments apply to the chart above and the chart below: As we take profits out of the market, we come to a point where we have accumulated sufficient profits that if we wish to risk those profits, we can begin to keep our stop further away from the price action.

If we don't want to take additional risk, then it's best to trail a 50% stop as the market moves down, and pull stops even tighter on reversal bars, or any indication that something is amiss.



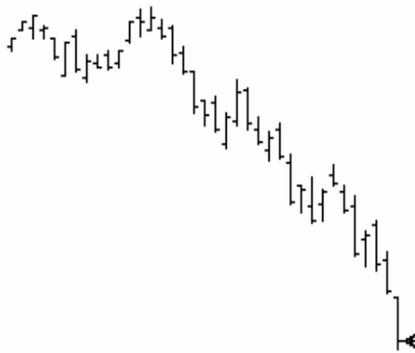
Because of the reversal bar, we tighten stops. We don't want a win to turn into a loss.



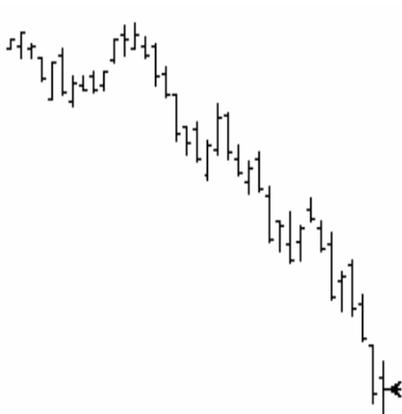
Another intraday correction gives day traders an opportunity to sell short.



All traders can jump in front of the market and get filled as the low is taken out.



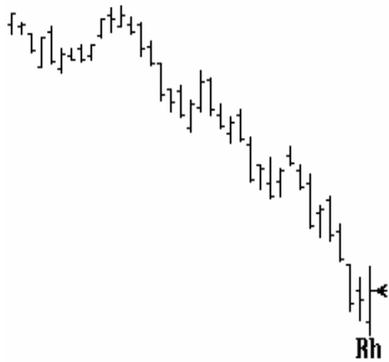
Prices break nicely to the downside.



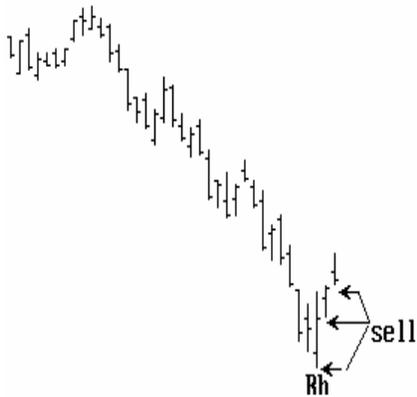
The downtrend is fully intact. If we are willing to take more risk, we can allow our stop to lag further back.



Here we see the value in keeping our trailing stop a bit further away, once we have established acceptable profits.



In any case, we would place a sell stop below the Rh and the next correction bar, in effect opting for the Trader's Trick.



We now have three possible selling points. Whenever we get 3 bars of correction, we move our lagging stop (if we have one) to one tick above the high of the third correction bar. This is because, if we were to get more than three correcting bars, we would have to assume that the trend is at least temporarily over, and prices may now move higher, or at the very least move into a congestion phase.

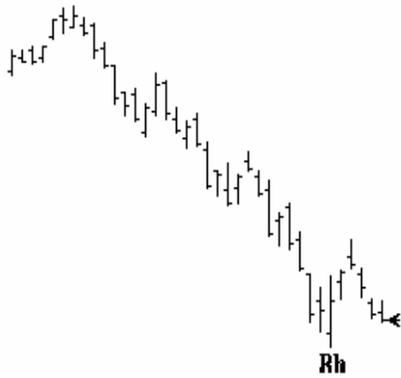


The gap open misses our highest entry point. Because it does, it would cause us to try to fill 2/3^{rds} of our position on a breakout of the low of the gap down bar.

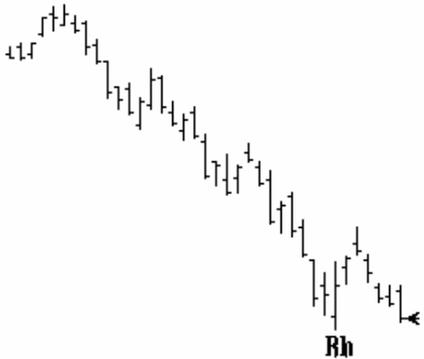


Once again the entry point was missed on the gap opening. We will try again for entry on the next price bar.

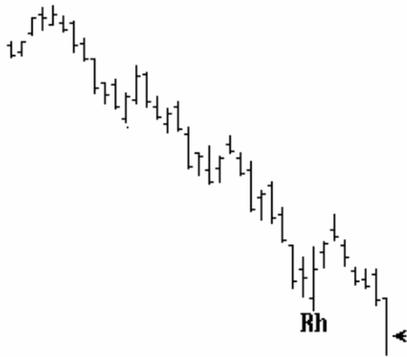
This bar brings a fill near the close.



At this point our entire position should be in place.



We do not need a sell order below the Rh if our entire position is in place.



Note with regard to the last four charts: An adequate trailing stop would have kept us in the market throughout the four days show on these charts. We would have been able to build a position by adding contracts.

But keep in mind that adding contracts also adds all new risk. Furthermore, the risk which is incurred may be greater in nature than the risk originally accepted. Why? Because each time we add to our position, we are closer in time to the end of the move being made.

The method of trade management that we have been showing you in this entire series of charts is here is to demonstrate to you an alternative method of trade management. It is up to the trader to

decide how to manage his/her own positions. In our minds there are two basic approaches, both of which may be acceptable to some.

The first is that of putting on the entire position upon the initial entry and then liquidating portions of that position to cover costs, take a small profit, and finally to ride the trade as far as it will go with what remains of the position after partial liquidation.

The converse of this method is to build the position by entering a portion of it to test the waters. If the initial portion becomes profitable, you then add to the position by adding contracts in stages until you have put on the entire position.

Much of any acceptability depends upon your personal comfort level in handling risk, and your financial capacity for handling risk.

We'll look at two more charts now. In actuality, the market continued downward for quite some time after the last chart below.



Here we see a reversal day. By now you should know that it usually means some sort of correction is due



Sure enough, prices correct. We would start by trying to sell a breakout of the correction low. We would also place a sell stop below the Rh for part of our position.

Remember, it is up to you to decide how much of your position you want to place at any given level. It is a matter of comfort and style. Where do you feel best about placing your entry orders?