

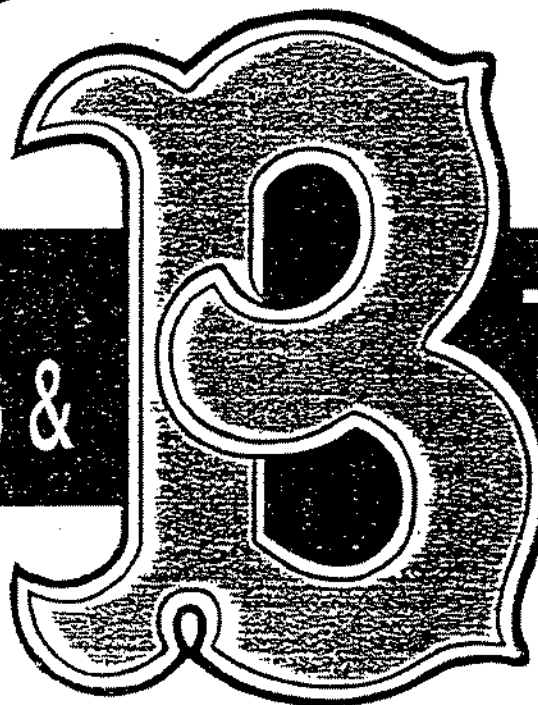
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THE

BILLYARD ATLAS

ON

SYSTEMS &



TECHNIQUES

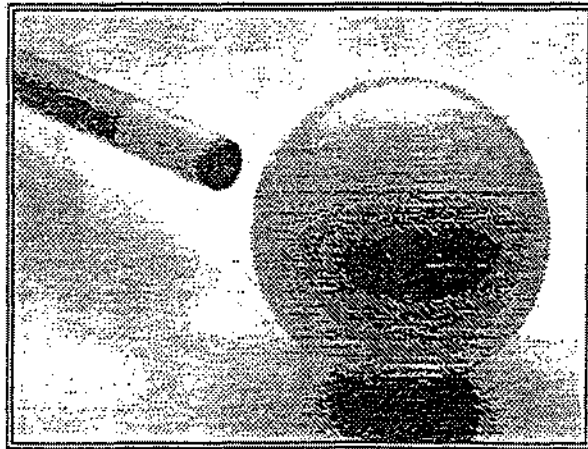
three

A

Billiard Atlas

ON

Systems & Techniques



Book 3

Walter Harris

"The Billiard Atlas"

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Cocoa Beach, Florida 32932-1426

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Published May 1996.

Preface

An Arsenal Of New Weapons For
The Three Cushion Billiard Player

The Nine Ball Player Can Now Learn
More About The Game

Billiard Fundamentals

Table Of Contents

Preface, Introduction, Etc.	I to XII
Chapter One The Long Angle	1
Chapter Two Across the Table	31
Chapter Three Some ^{Pearl, Japan} Gems _{Many Conque}	59
Chapter Four End Rail	71
Chapter Five How To	97
Chapter Six The Short Game	117
Chapter Seven Fundamentals	135
Chapter Eight The Mental Side	149
Chapter Ten Miscellaneous	169

Searching for valuable material seemed
endless, thanks to dearest *Johanna*
for her enthusiasm and encouragement.

My thanks to *Joe Ventrelli* for his many
hours on the billiard table making sure these
systems and techniques were accurate.

Introduction

^{simultaneous}
A tremendous evolution of the game has taken place in Europe and parts of Asia.....no one is surprised if a player reaches a game average of 2.00.....only averages of 3.00 are remarkable.

Players from the Western Hemisphere (probably in most parts of the globe) are still playing the same averages of 40 years ago.....which is between .700 and .900, and a 1.00 average, is rare.

One of the main reasons is ^{beginning} ^{manages} ^{to count} lack of knowledge of the diamond systems.....the calculation of the shots with help from the diamond marks on the rails.....players have much ambition in other phases of the game, but are not interested in the marks on the rails.

Enrique Navarra won the world title in 1954 and 1958, with averages of .937 and .926...in 1970, *Raymond Ceulemans* won it with a 1.267 average.....so you can see that the stratospheric averages of today, are of recent vintage.

^{can't} ^{recount}
^{can't} ^{recount}
In my travels, I've found that most billiard players don't know how to improve their game, (mostly) playing by feel.....rarely anyone around to help them.....the experienced room players, were unable to supply the answers, as they too were basically mired at their level of play, mostly playing by the ^{these} ^{center} ^{for} seat of their pants.

It is impossible to be a top player without the knowledge of systems and techniques.....unless.....a player has an IQ of 160 and plays billiards 6 hours a day for many years.....or a player who devotes many years to the balkline game, has much talent, takes lessons from a great teacher, and continues instruction in the 3-cushion game for another bunch of years.

^{have} ^{to} ^{be} ^{able} ^{to} ^{reach} ^a ^{1.0} ^{level} ^{of} ^{play}, ^{but} ^{for} ^{the} ^{rest} ^{of} ^{the} ^{billiard} ^{world} ^{using} ^{"feel"} ^{only}, may get them to be a decent room player.

If you want to verify this, just ask good experienced players what they know about the "plus" shot.....or how accurate they are on bank shots.....or how they adjust to corner hit angles.....a player needs information to execute these shots, otherwise he's lost.

Many players, who do not use systems, subconsciously think a master system may exist that solves all problems.....this is not so. There is no master "diamond system" that calculates all the running lines.....for example, how could there be a master plan when a deadball shot is attempted.....or a double the rail.....or a reverse the rail.....or a spin shot.....or very short angles.....etc, etc.

The goal of these "Atlas" books is to provide the player with the required know-how to handle any shot. Learning how to calculate running lines can begin quickly. Memorizing the many running lines will probably take a while.

When a student embraces only one system or technique, he will know more about that shot when it arises, and his entire game will be 1% better.....instead of a 5.6 player, he will be a 5.7 player.....getting to be a better player is fun.....but it takes time and study.

These "Billiard Atlas" books contain a variety of ball systems, which are different from each other.....most non-system players do not realize that this kind of information exists, in fact, many players do not hit dead ball shots !.....when these systems are absorbed, the player will have a "set" to choose from.....a great edge in determining how to play a shot.....and shave off many years in being able to be a better player.

The great *Raymond Ceulemans* is mainly responsible for today's high level of billiards play, and a major champion of system use.....top level play requires knowing the running lines and being able to execute the shot.

Foreword

By Bill

Writing about billiard systems and techniques is not easy.....as a reporter, I have to understand the technical components that are being written about and then write the manual for an audience who may not understand English very well.

My task is to communicate as effectively and as simply as possible, and many times this is difficult.....for example, when the subject of stroke is discussed, my descriptions do not do justice to this subjectmany chapters could be written here.....the "*Billiard Atlas 3*" covers only some highlights.

Book 3, had me searching the globe for books and periodicals, mostly in other languages.....this in turn, involved the problem of finding a billiard player that would offer his services as a translator.

Systems players, world wide, volunteered their services in submitting material for these "Atlas" books....thanks to them, and the translators, we have a new batch to use.

In addition to the above, information from the top players was an important part.....here again, my thanks for their input.

Passing important information to the billiard world is definately a labor of love.....it is a great privilege to write on the subject of billiards.

Chapter One

The Long ^{goc}Angle

This chapter will take you on an unusual learning trip.....in my 45 years of playing billiards, this kind of long angle information has not been available.

Very few players know the exact running lines of a long angle shot.

This chapter will introduce four new systems called the "*Two Thirds*", "*Florida Back Up*", "*Sid's Cousin*", and the "*Triangulate*" systems..... this will have you shooting types of shots you never dreamed had a calculation.

"*System South*" helps to become more accurate when this billiard presents itself.....during the past years, using "feel only" for this shot, did not increase billiard production . . .

The "*Lucky Five*" system will give you a chance to make a certain low percentage shot, when alternatives are dim.

When you embrace the information in this chapter, your game will look different.....you will be making billiards the average player does not attempt.

System South

trên bô

This system belongs to an entire family of shots.....as of this writing, information making this shot easier, was not available.....a good player once started to describe this method, but did not elaborate, as he had second thoughts about passing on good information. *tiên, trau chui?*

Word has it that this method originated from Peru, author unknown..... but thanks to **Stephen Cook** we now have it.

Novela

Drawing 1 has the cue ball origin from the 3rd diamond.....this will be called the zero line..... employing cue ball english as noted.

Điểm đánh bóng cue

Drawing 2 has the same cue ball origin, but three new object ball locations are shown.....the numbers on the short rail indicate the cue ball english. *chi, cho biết, biết thì*

Drawing 3 now moves the cue ball origin.....the zero line uses cue ball english as shown on page 3.....the long rail numbers indicate cue ball english when the cue ball is away from the zero line.

ti thay đổi, ti khác nhau

Drawing 4 shows an example where a variation takes place, the cue ball is going from end rail to end rail.....my guess is minus one cue ball english.

1/2 - 2 - 2

Simple numbers to remember....yes ?

Điểm 1

Figure
Drawing 1

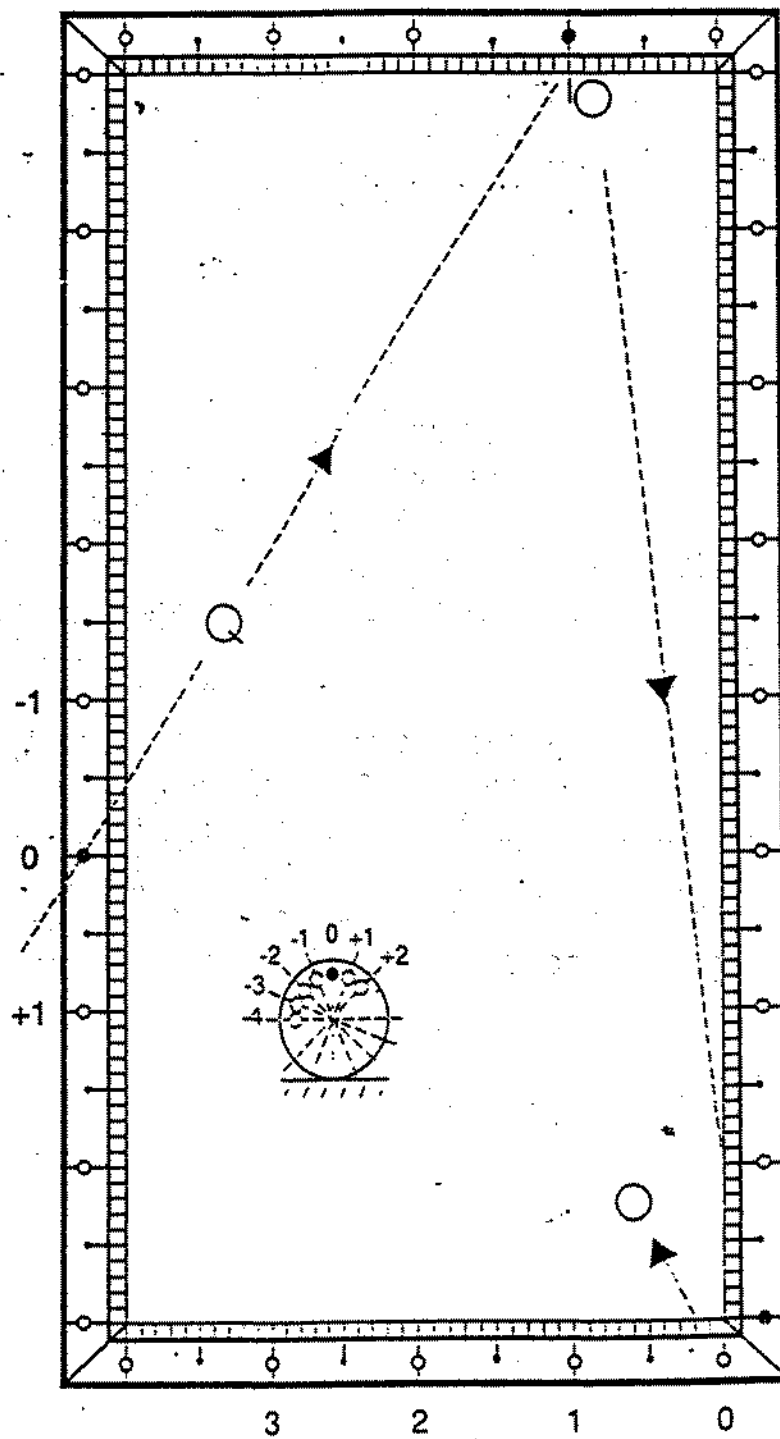
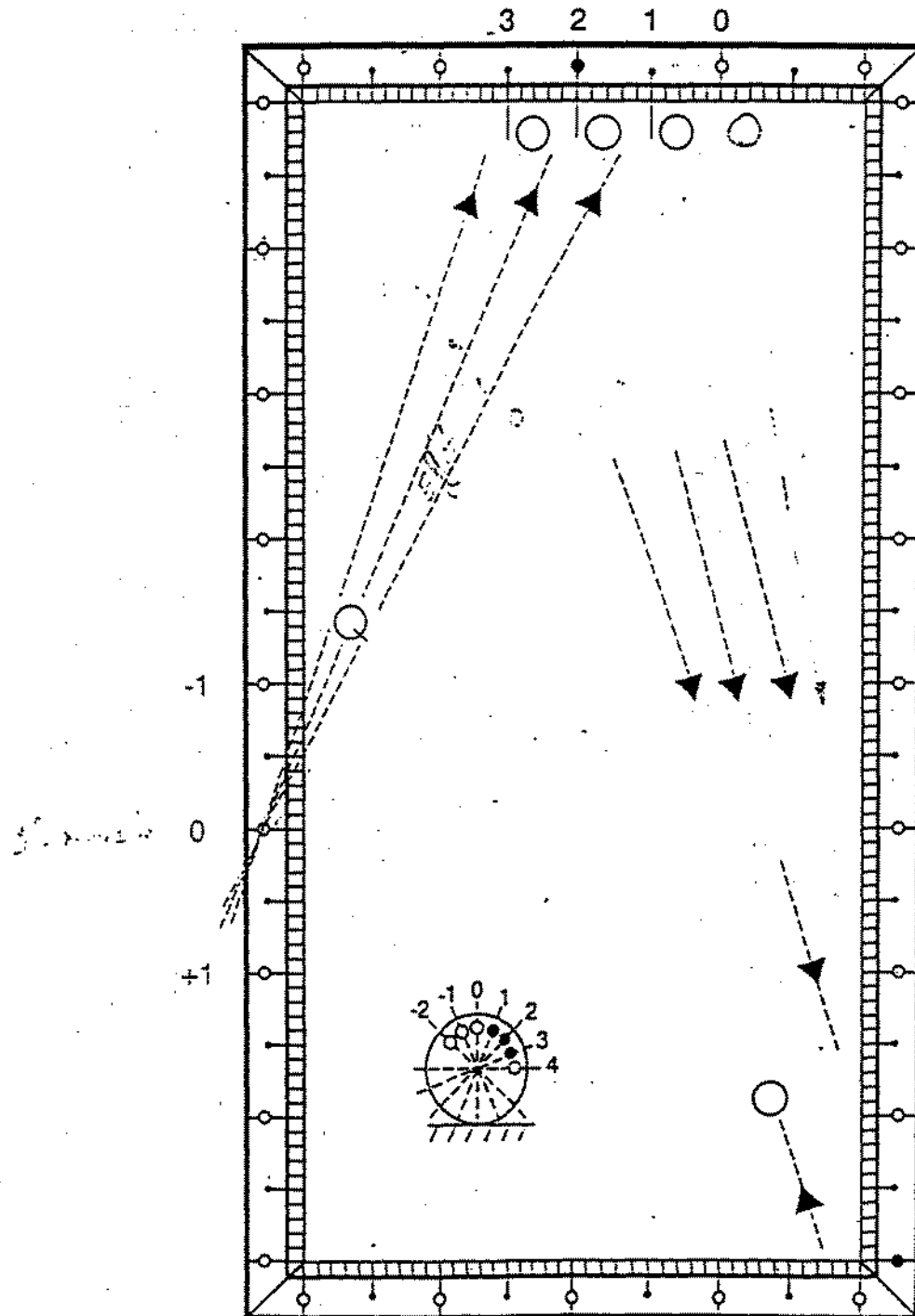


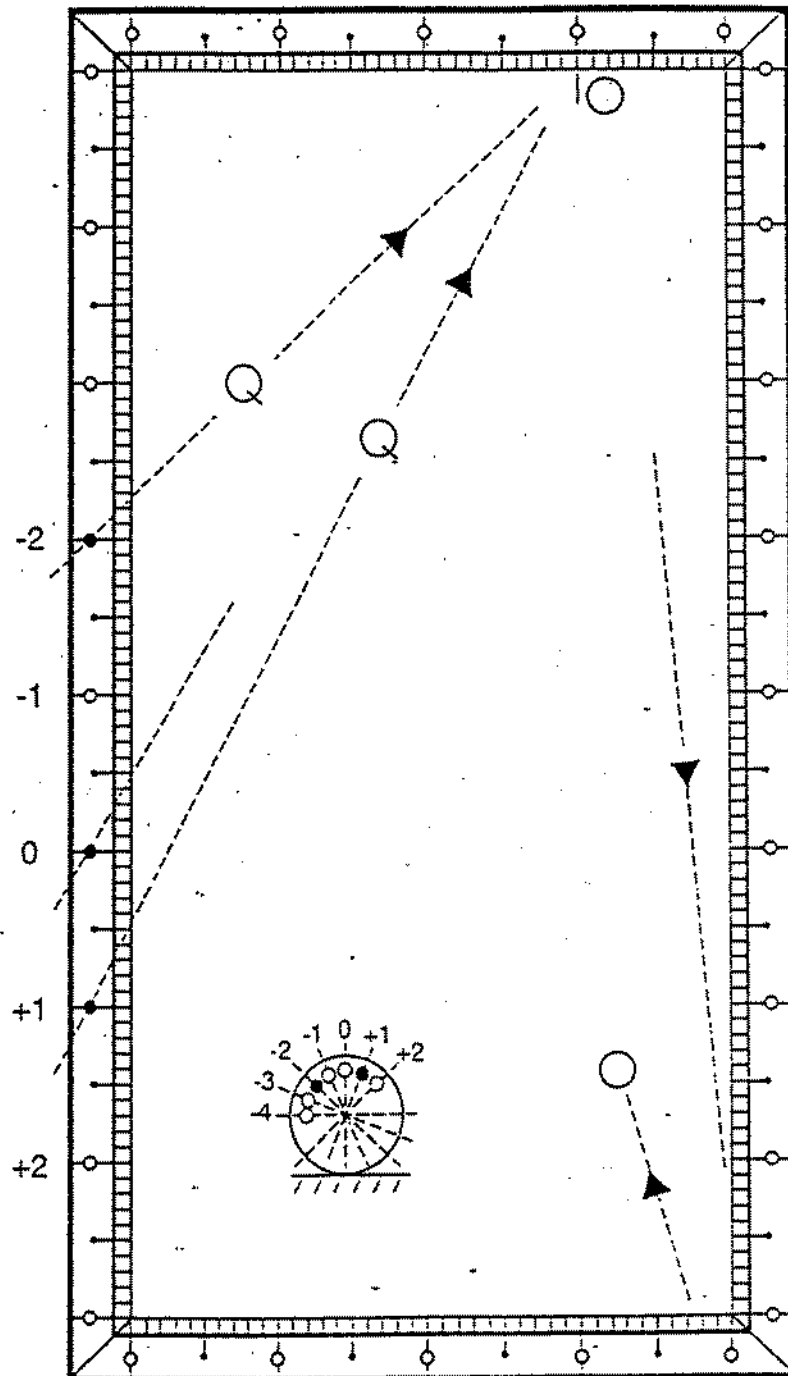
Fig. 105 115

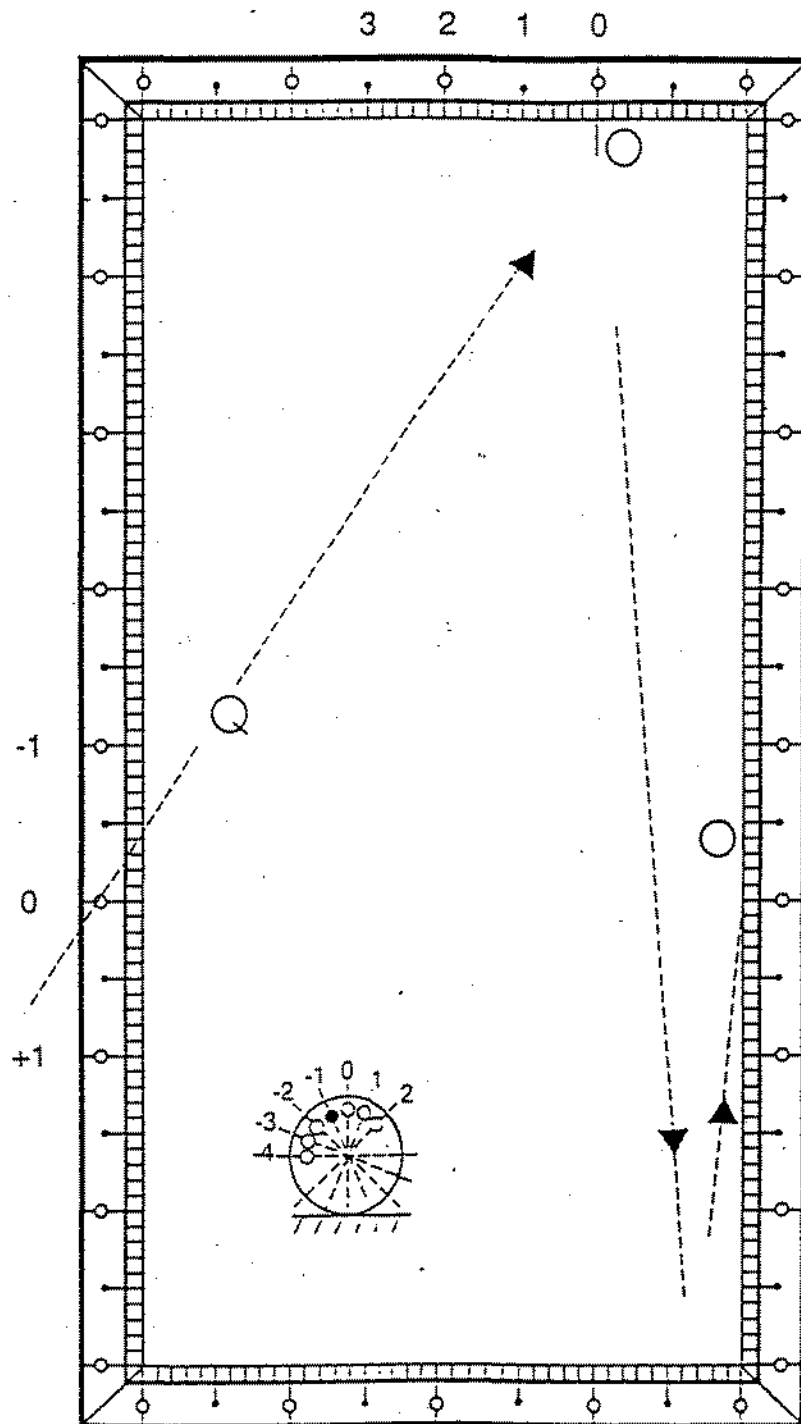
SYSTEM: SUB

Drawing 2



Drawing 3





Drawing 4

*For long angle shots with running english, strike
the cue ball with a moderate-to-soft speed.*

*With this speed, the cue ball curve and
deflection basically cancel each other out.*

2 - *Ticks & Stone* Two-Thirds System

Sometimes a player needs to know a path that is outside of "normal running english" paths.....this dead ball system fits very well.

think they
Drawing 5 indicates the cue ball origin numbers on the long rail.....notice that these numbers turn the corner onto the short rail.

back to back
The return paths are about 66% of the cue ball origin number.

These numbers are to be slightly altered when testing the table, especially on new rail cloth. *make the*

Drawing 5 shows an example where the cue ball origin is diamond 8, and the return is 66% of diamond 8, or 5.3.

Drawing 6 indicates how this system is applied to a normal billiard situation.

Notice that this system stops at a cue ball origin of 12.....if you wish to use numbers on the short rail, that are larger than 12, use the principles shown in "The Billiard Atlas II" using the "New York Bob System".....also refer to the "Florida Back-up" elsewhere in this book.

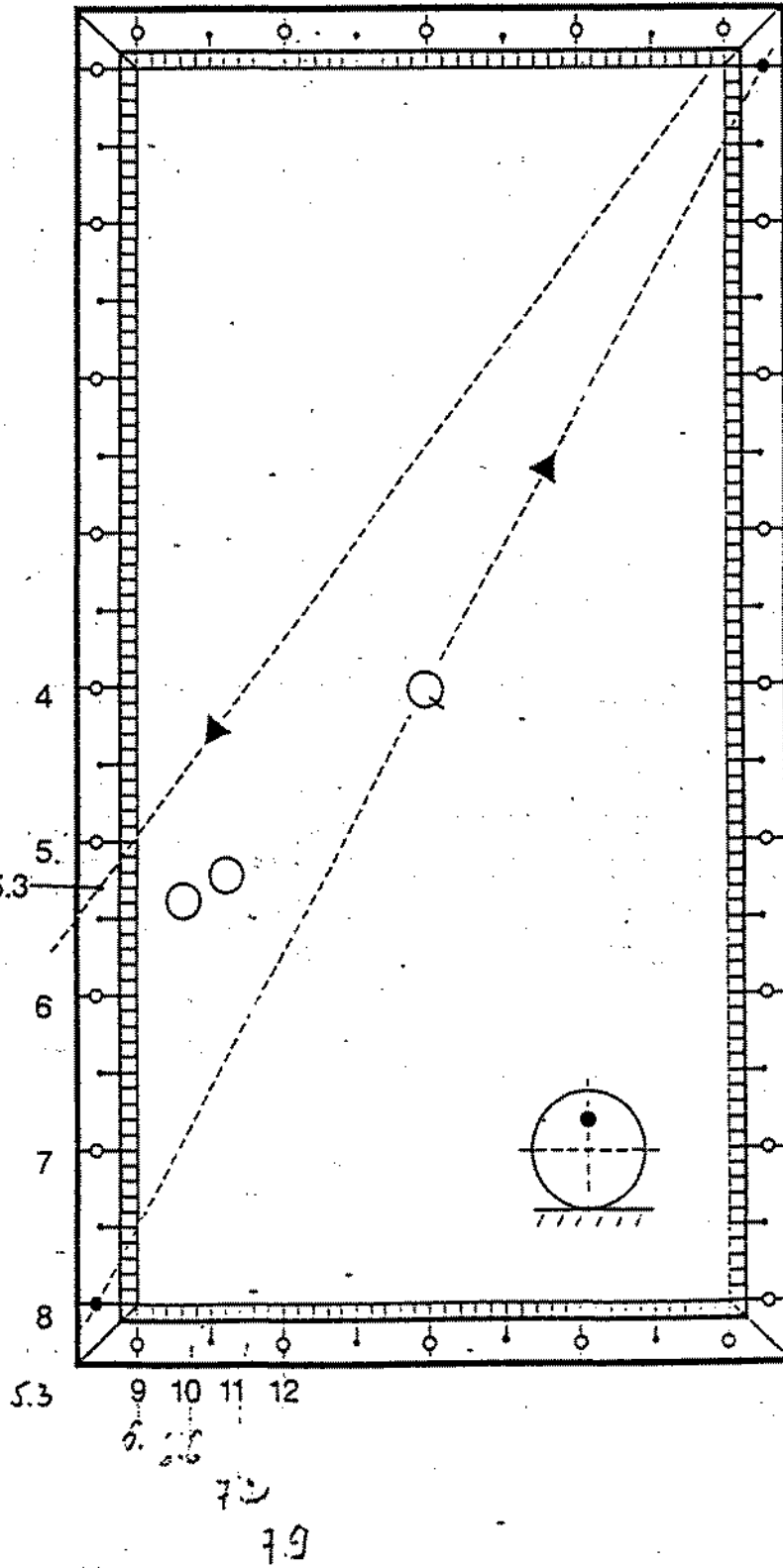
Please note that seven rail speed is available.....just find the longest angle available for the sixth rail hit spot, on the first rail.

With these kinds of guide lines, making billiards becomes easier, and stuff like this adds to a players arsenal of knowledge.

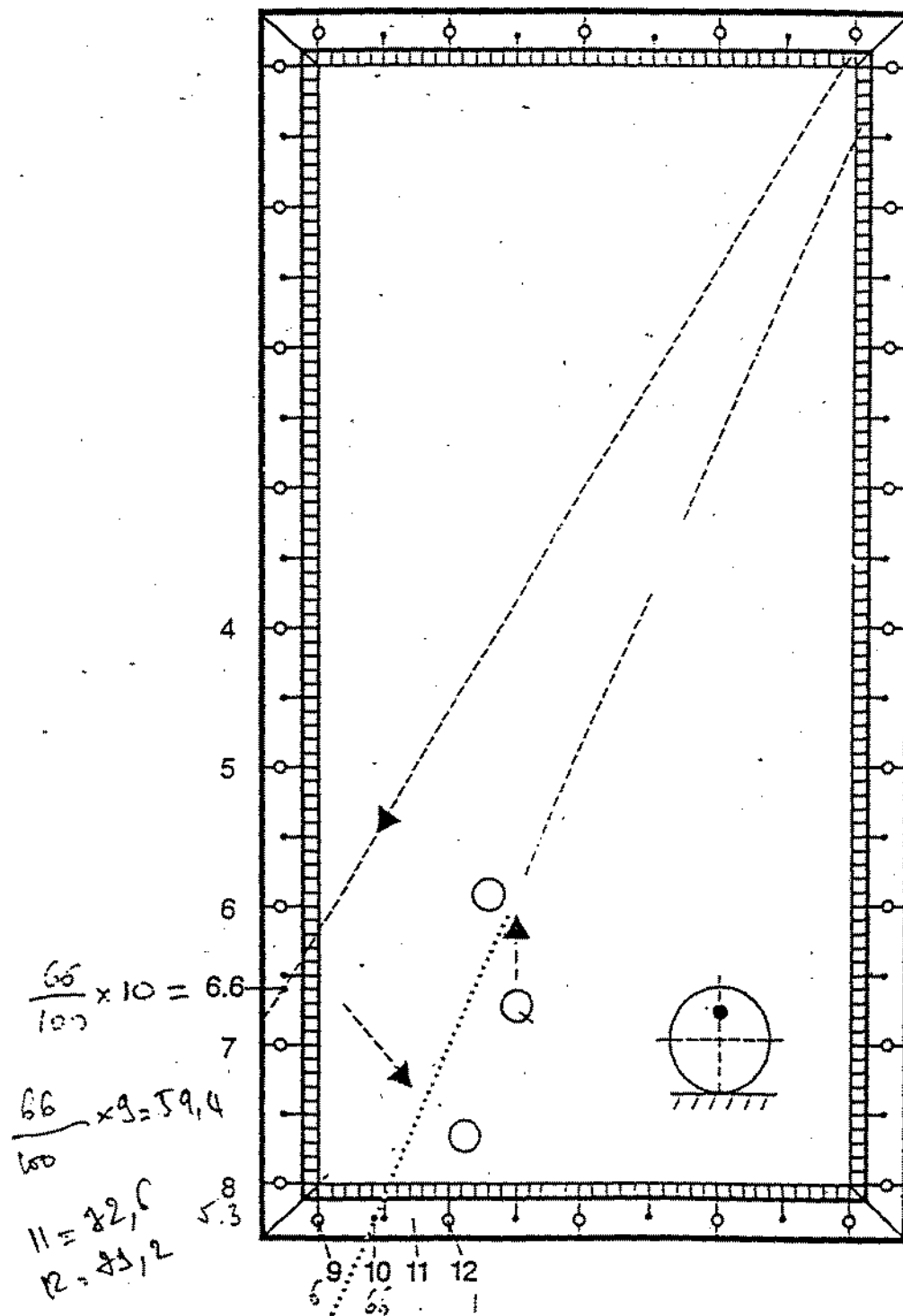
System $\frac{2}{3}$

Drawing 5

$$\frac{66}{100} \times 8 =$$



Drawing 6



***The two most important items
in making a billiard are, perfect
speed and hitting the cue ball
exactly as you planned.***

Lucky Five

Knowing this ^{phương pháp} method will get you out of some difficult situations..... it's just an easy dead ball system, called lucky five.....note that the cue ball origin is from the end rail..

When the cue ball is ^{nhắm, chĩa, hướng vào} aimed at zero, on the ^{gần kề, sát} adjacent long rail, just **add five** to the 3rd rail cue ball origin point, to find the 3rd rail hit point. Drawings 7, 8 and 9 reveal ^{hit} cue ball origins of 5, 10 and 15.....when the cue ball is aimed at zero, it returns to the 3rd rail at 10, 15 and 20.

When the cue ball origin point is at 10, and you want to hit 19 on the 3rd rail, then allowances are needed.... the diamond numbers on the adjacent long rail enter into the calculations.....drawing 10 has the cue ball origin at 5, which has an allowance factor of **2 times**.

If you want to hit ^{thay vào đó} 12, instead of 10, the **2 times** allowance is used, and it works like this.....the cue ball when aimed at zero, would return to 10 on the 3rd rail.....if you want 12, which is 2 more than the 10, just ^{nhân lần} multiply **2 times 1** and add this to 10.....the new long rail aim point is 1.

If you want 14 on the 3rd rail, which is 4 more than the 10, just multiply **2 times 2**, and add this to 10.....the new aim point on the long rail is diamond 2.

Drawing 11 has the cue ball origin at 10.....this has an allowance factor of **4 times**.....if you wish to hit 19 on the 3rd rail.....which is 4 more than the normal return of 15, just multiply **4 times 1**, when added to 15, makes 19.....aim at diamond number 1 on the long rail.

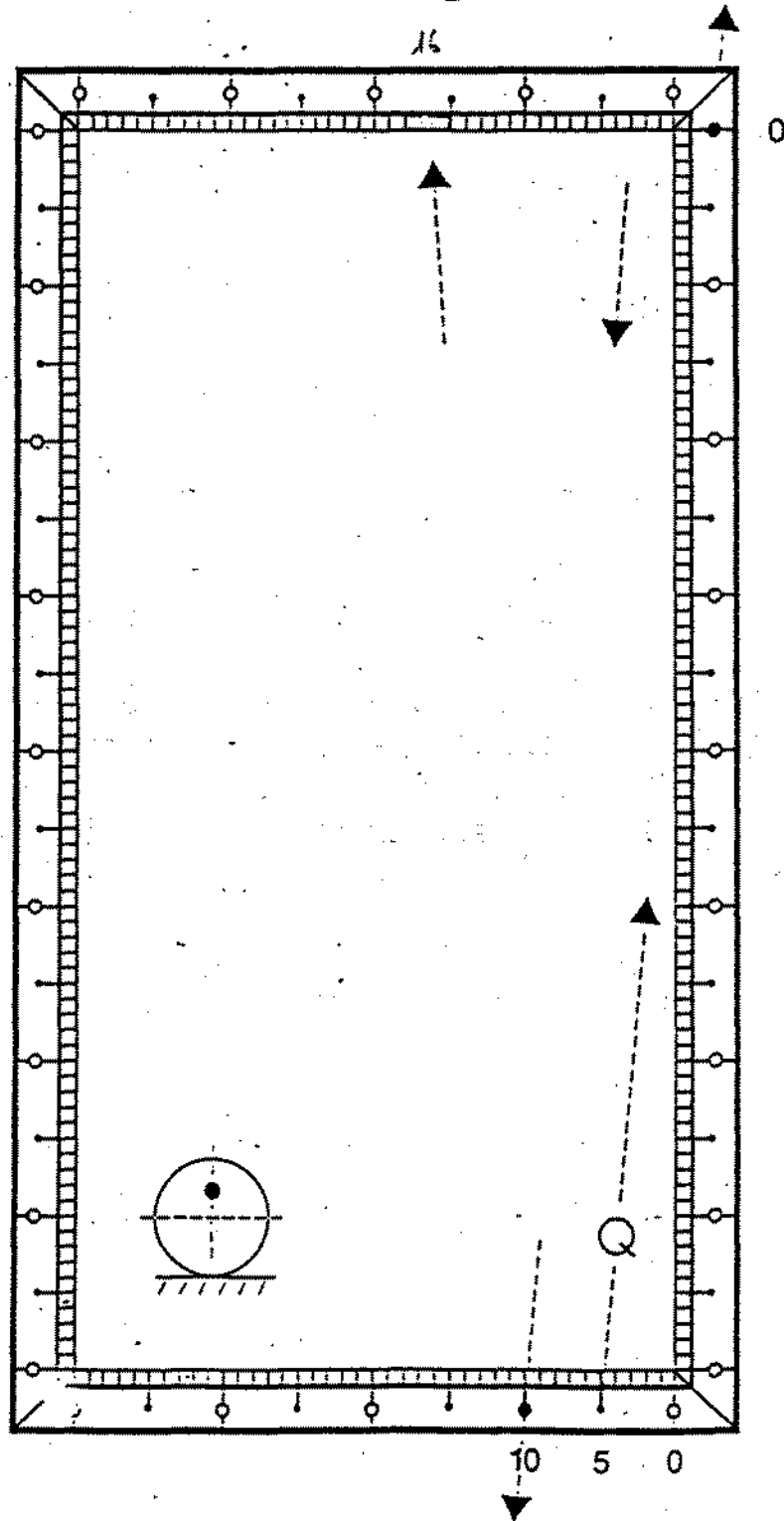
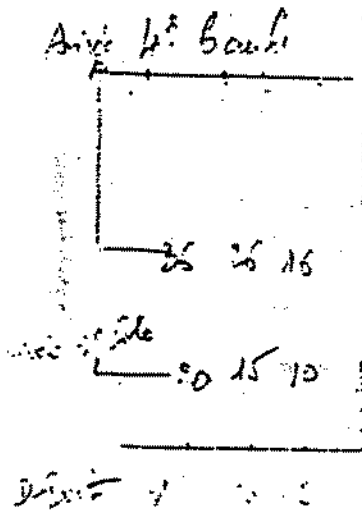
Drawing 12 has the cue ball origin at 2.....this has **no** allowance factor, and when aimed at zero, returns to 7 (add 5).....if you want to arrive at 9, aim at 2 on the long rail....2 plus 7 equals 9.

Note: Use the same angle from 2nd to 3rd rail for the angle of the 3rd rail to 4th rail destination.

^{nhảy đi đến}

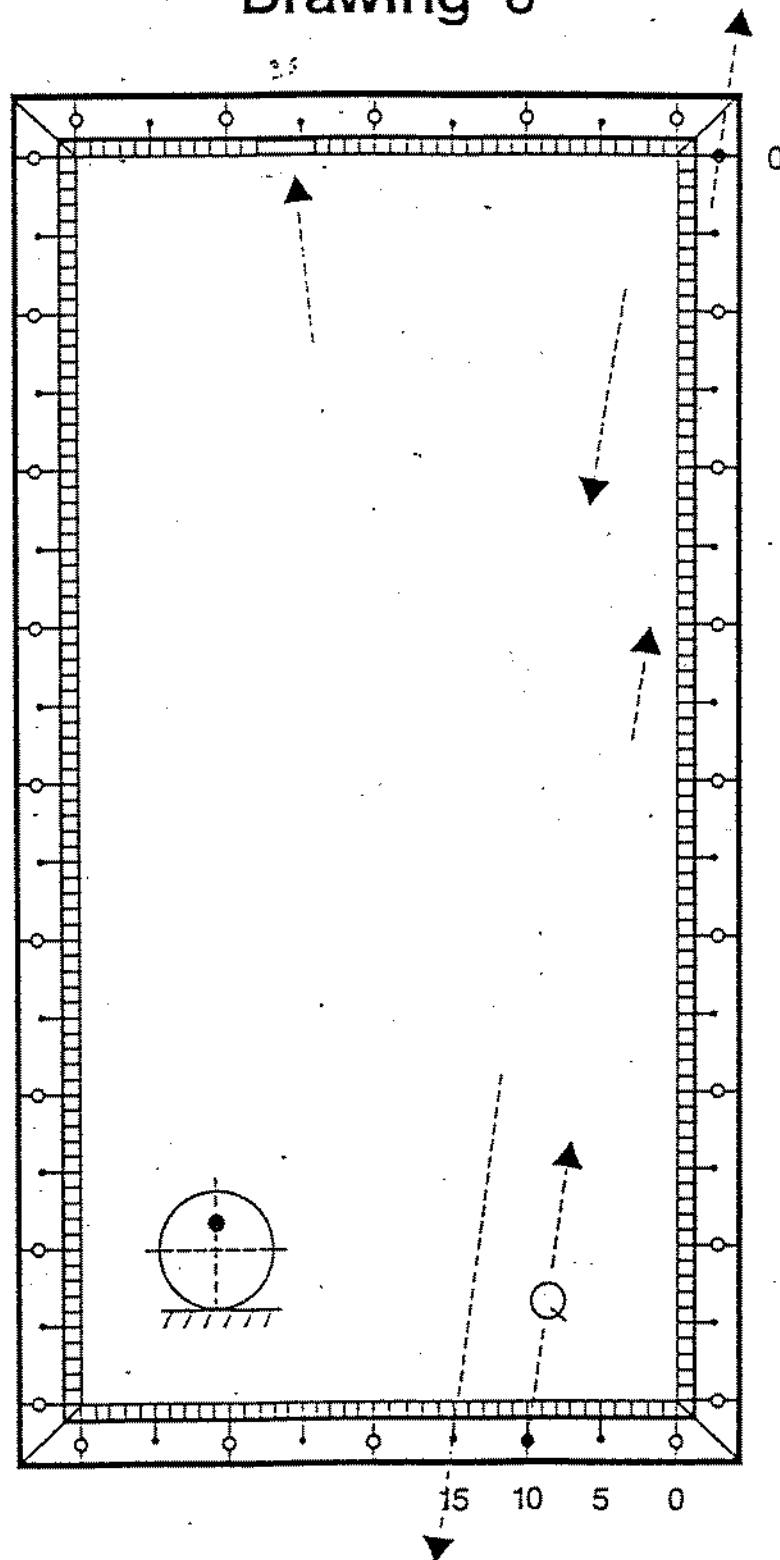
Check Five

Drawing 7

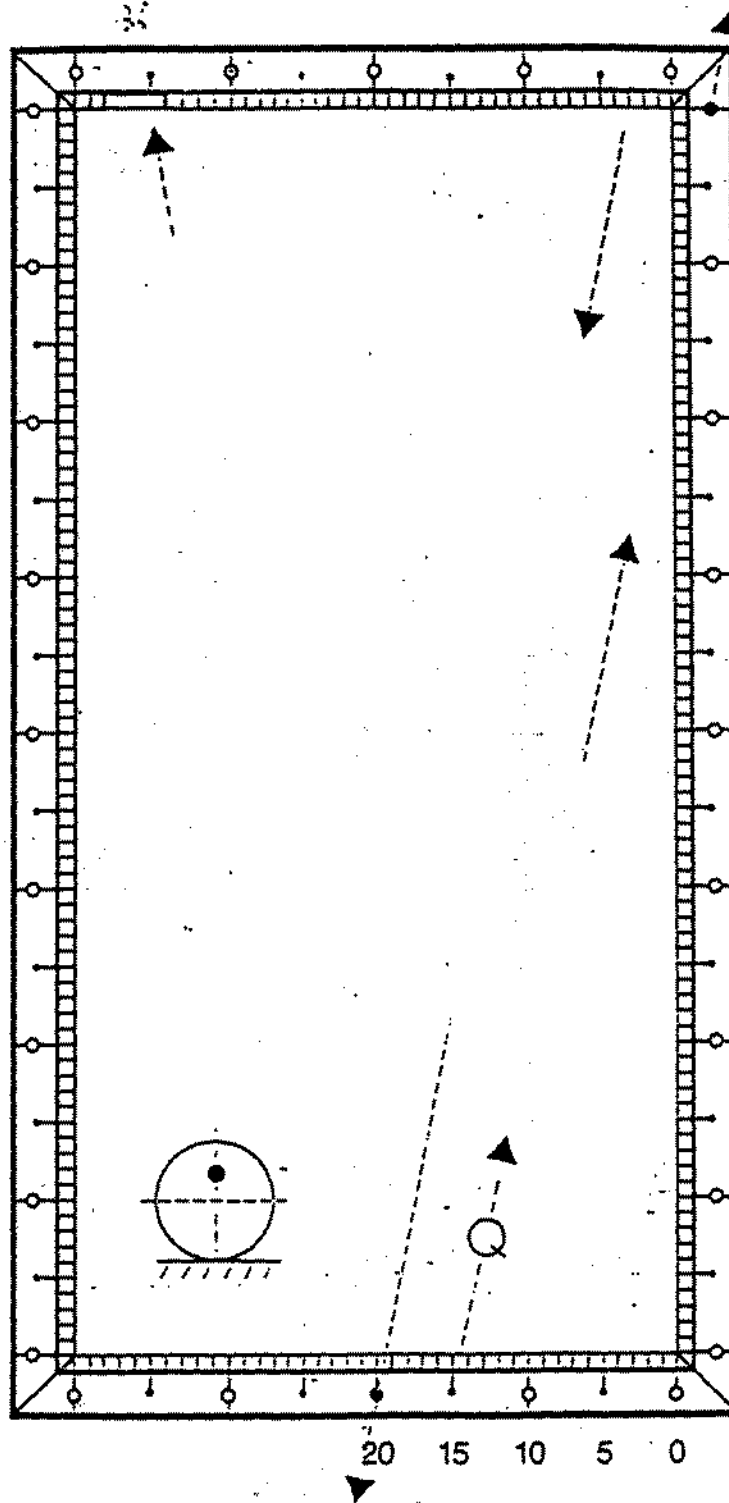


Sketch of a FLOWDAHL

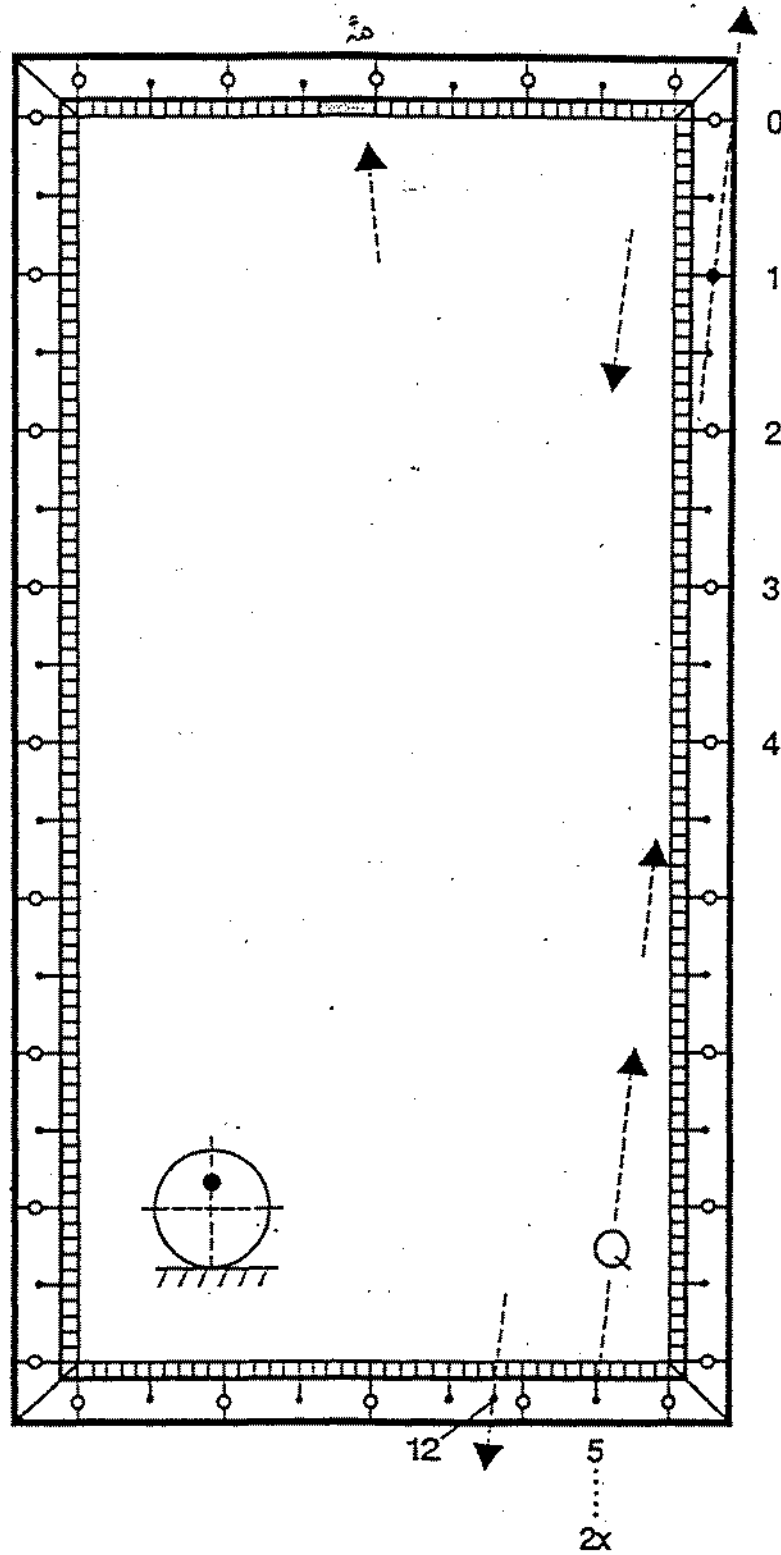
Drawing 8



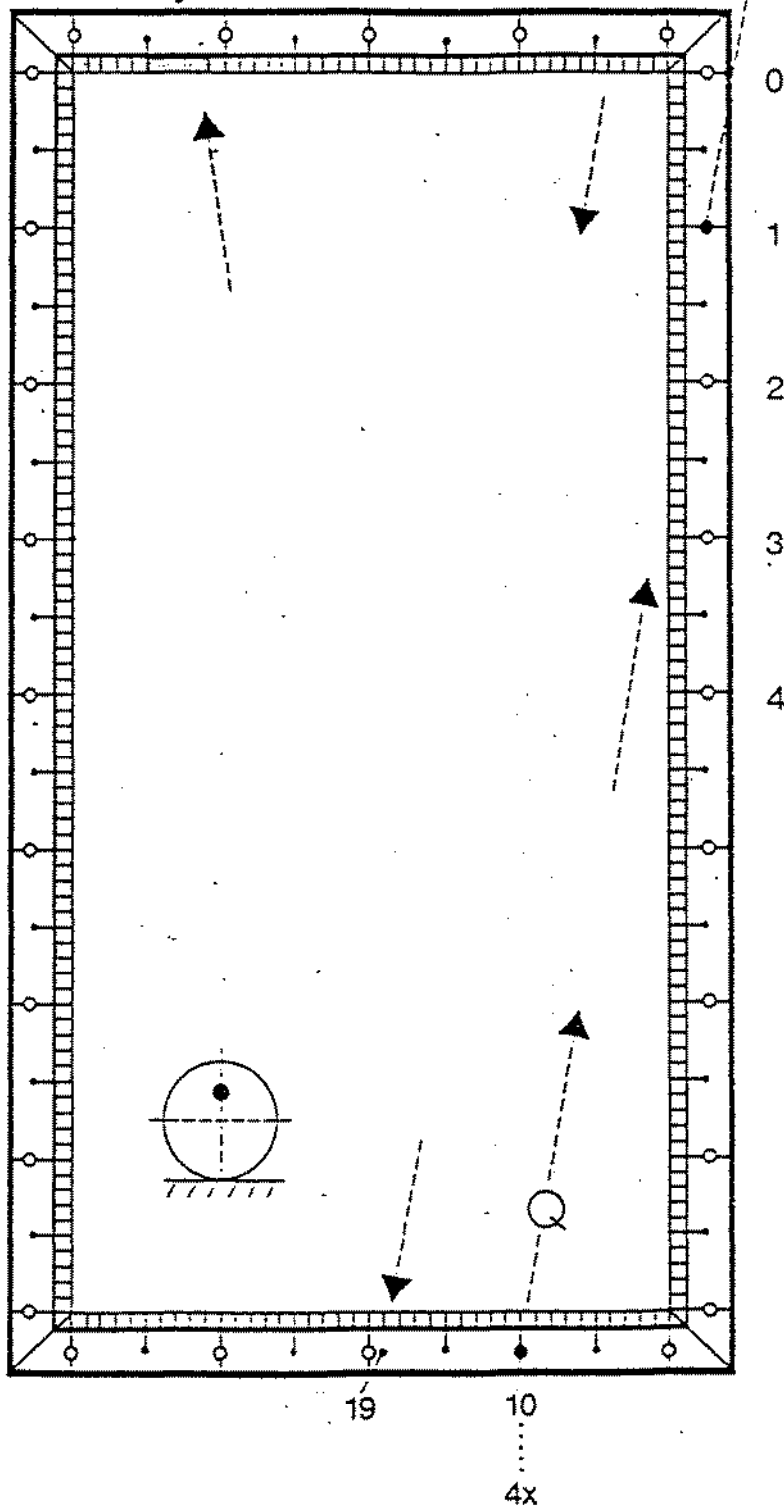
Drawing 9



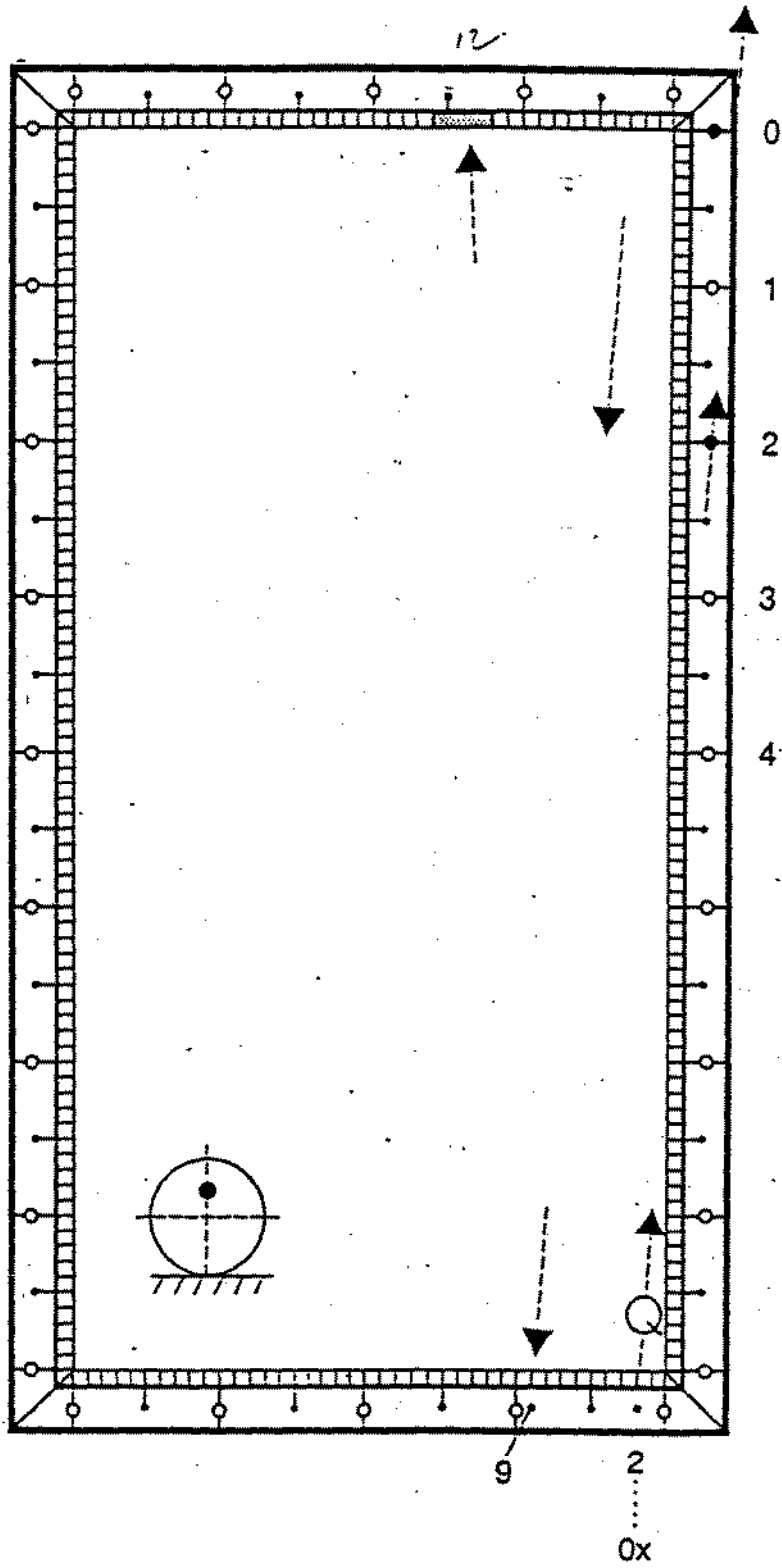
Drawing 10



Drawing 11



Drawing 12



***The mere having of definite objective points
will wonderfully improve your discussion***

Florida Back-up

Try this shot on your favorite opponent and you are liable to get a cue tapping for being so accurate.....this comes in handy when the cue ball caroms off an object ball, and the "running lines" are known.

Drawing 13 notes the type of billiard attempted.....this drawing also maps out the numbers for the rails.....note the odd configuration for numbers on rail "p".... these cue ball origin numbers, when matched with the same numbers on the first rail, will hit corner "X".

Drawing 14, introduces a fourth rail hit spot, and the allowance numbers required to make this billiard.....they are the circled numbers.....we have the cue ball going from the short rail (origin) to the long rail, to the short rail (3rd rail) to the 4th rail hit point.

The cue ball origin is "10" (with a circled number of 4), and you want to arrive at diamond 2 on the fourth rail.....multiply 4 (circled number), by the fourth rail hit point (2), or $4 \times 2 = 8$ this number now alters the path of 10 (cue ball origin) to 10 (first rail hit point), by 8.....so the new first rail hit spot is 2.

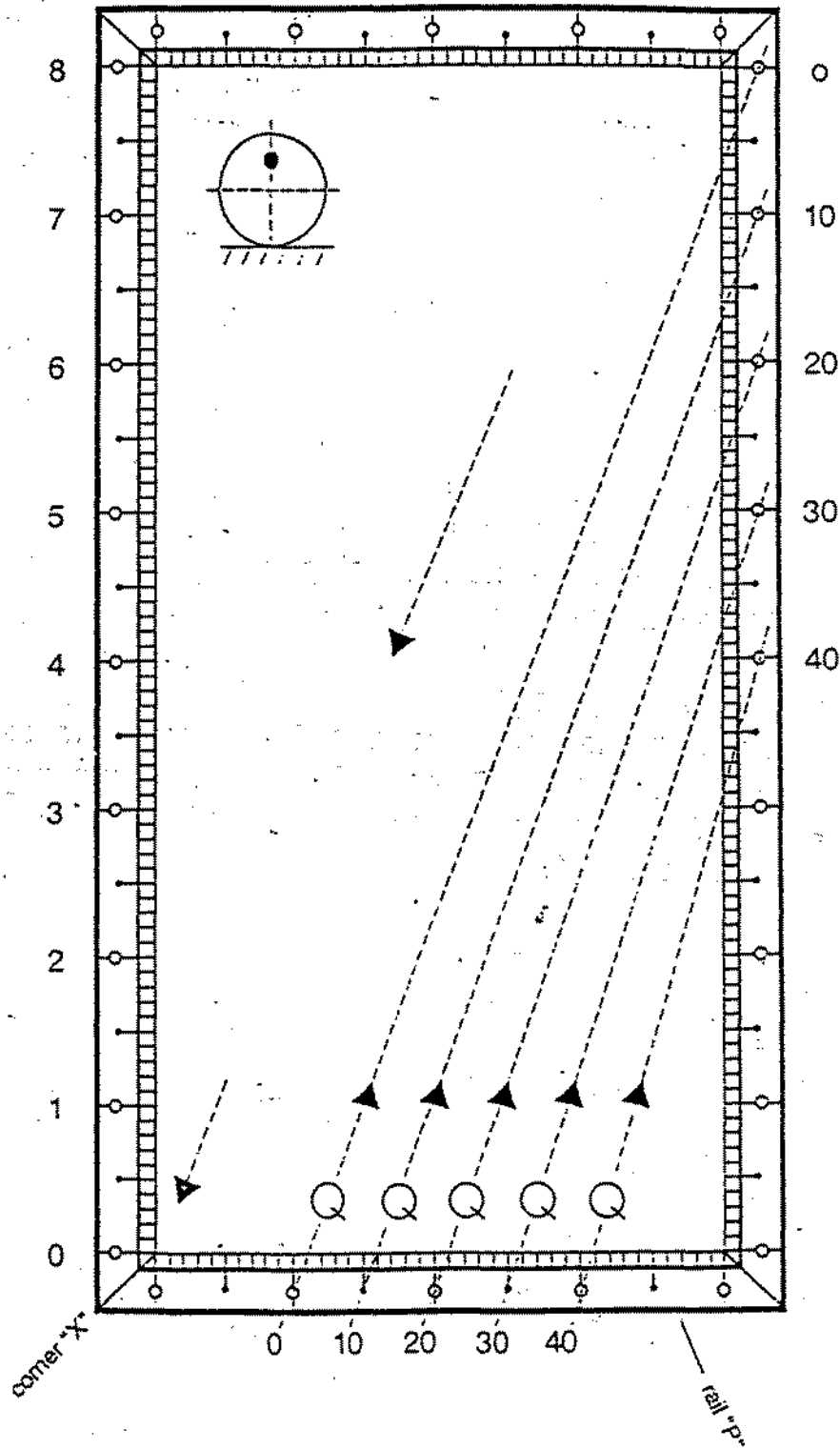
Drawing 15 has the 4th rail hit spot at 4, cue ball origin of 20, has a circled number of 3.....20 (rail P origin) to 20 (rail N), gets me to corner "X", but I want the 4th diamond on the final 4th rail.....multiply 3 (circled number) by 4 (4th rail) = 12.....this alters the 20 (rail P) to 20 (first rail) line by 12, so the new first rail hit spot is 8.

Drawing 16 has the 4th rail hit spot at 8, cue ball origin of 40, has a circled number of 1.....40 (rail P origin) to 40 (rail N) gets me to corner "X".....but I want diamond 8 on the fourth rail.....multiply 8 (4th rail) by 1 (circled) = 8.....alter the 40 to 40 line by 8.....or aim at 32.

Capische ?.

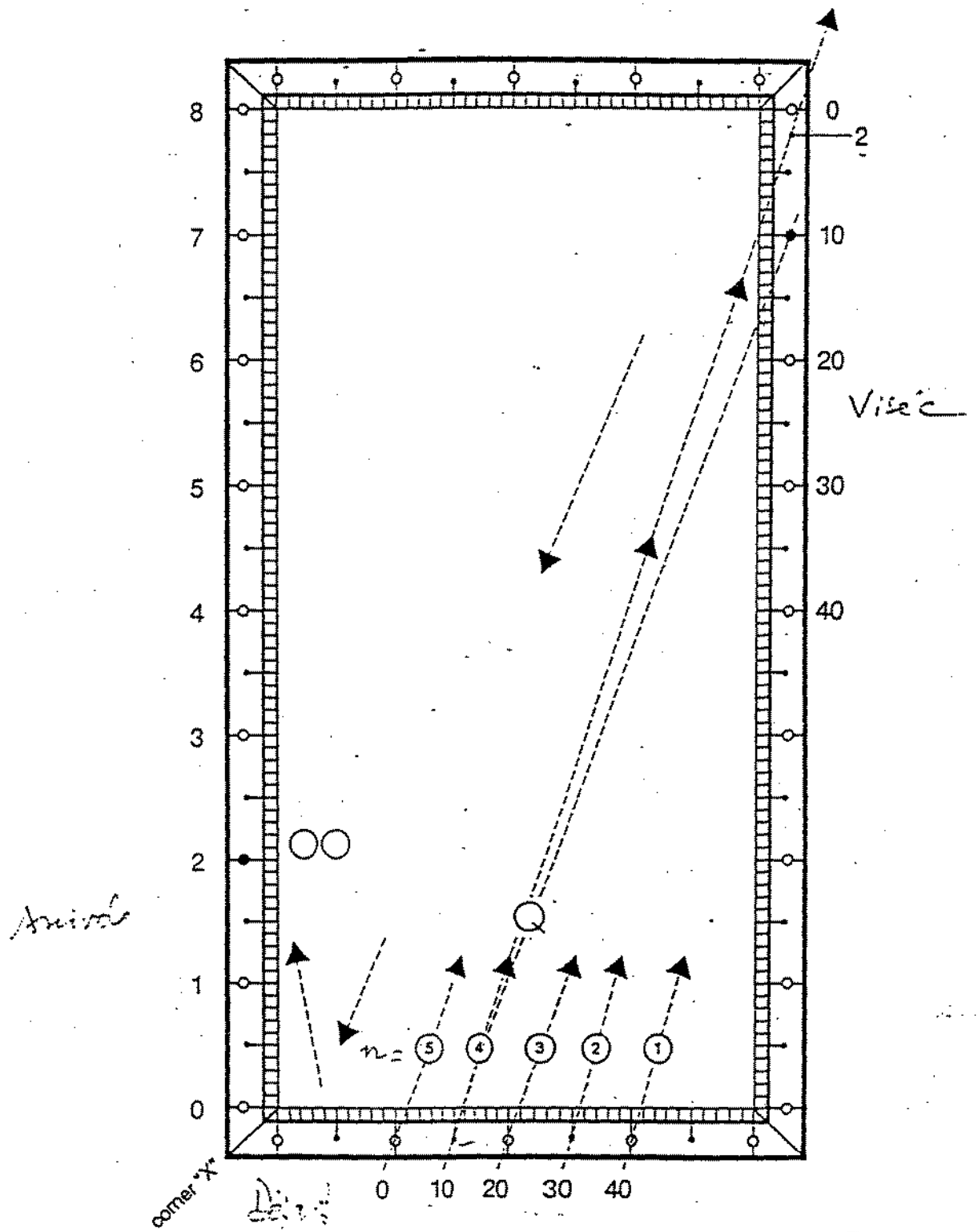
SYSTEMS FIG. 2A-G

Drawing 13



SYSTEME ZIG - ZAG

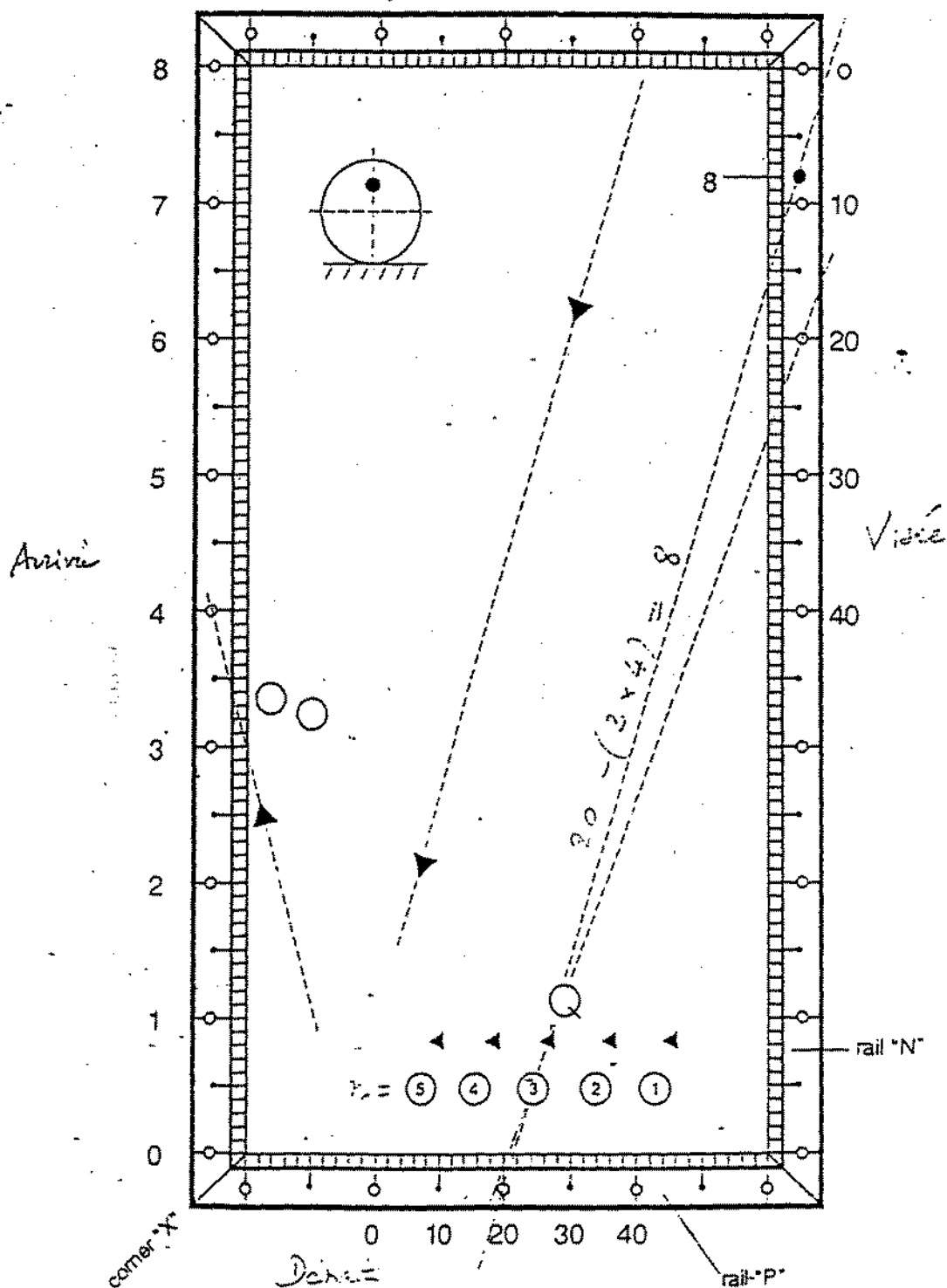
Drawing 14



Vine = Leaf = (Box A) =

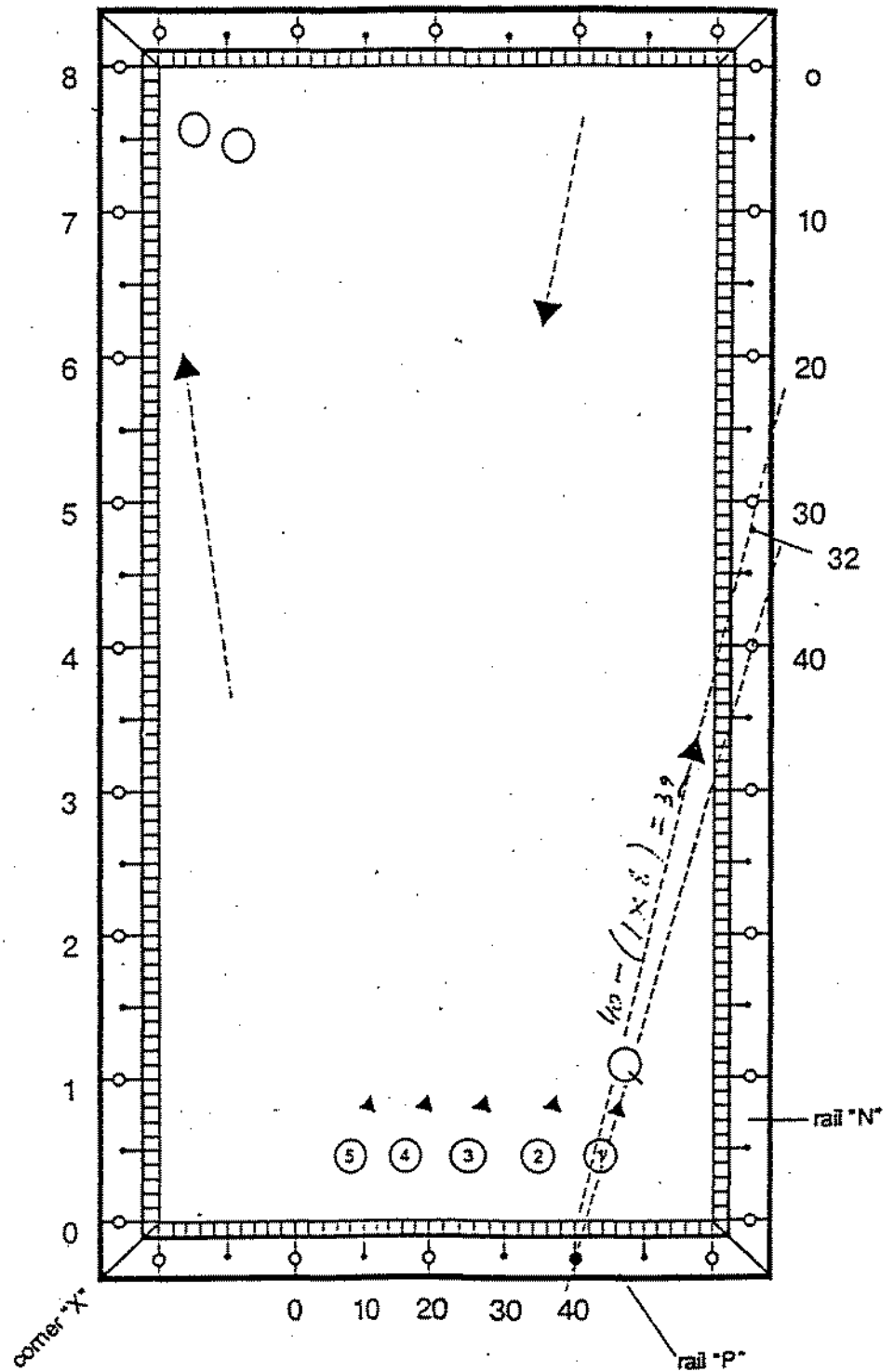
SYSTEME ZIG ZAG

Drawing 15



$$Visée = Départ - (n \times Arrivé)$$

Drawing 16



***Use just enough bridge
length to drive the
cue ball to its destination***

■

***The longer the bridge,
the more chance for error***

■

Use a firm bridge

Sid's Cousin

If the cue ball origin was from the ^{hạ thấp, hạ xuống} lower short rail, then the "Sid" system, as shown in the Billiard Atlas 1, should be the selected shot.

Drawing 17 has the cue ball origin from the **long rail**.....the selected shot is a good one, but who knows the angle ?.....triangulate and save the moment.

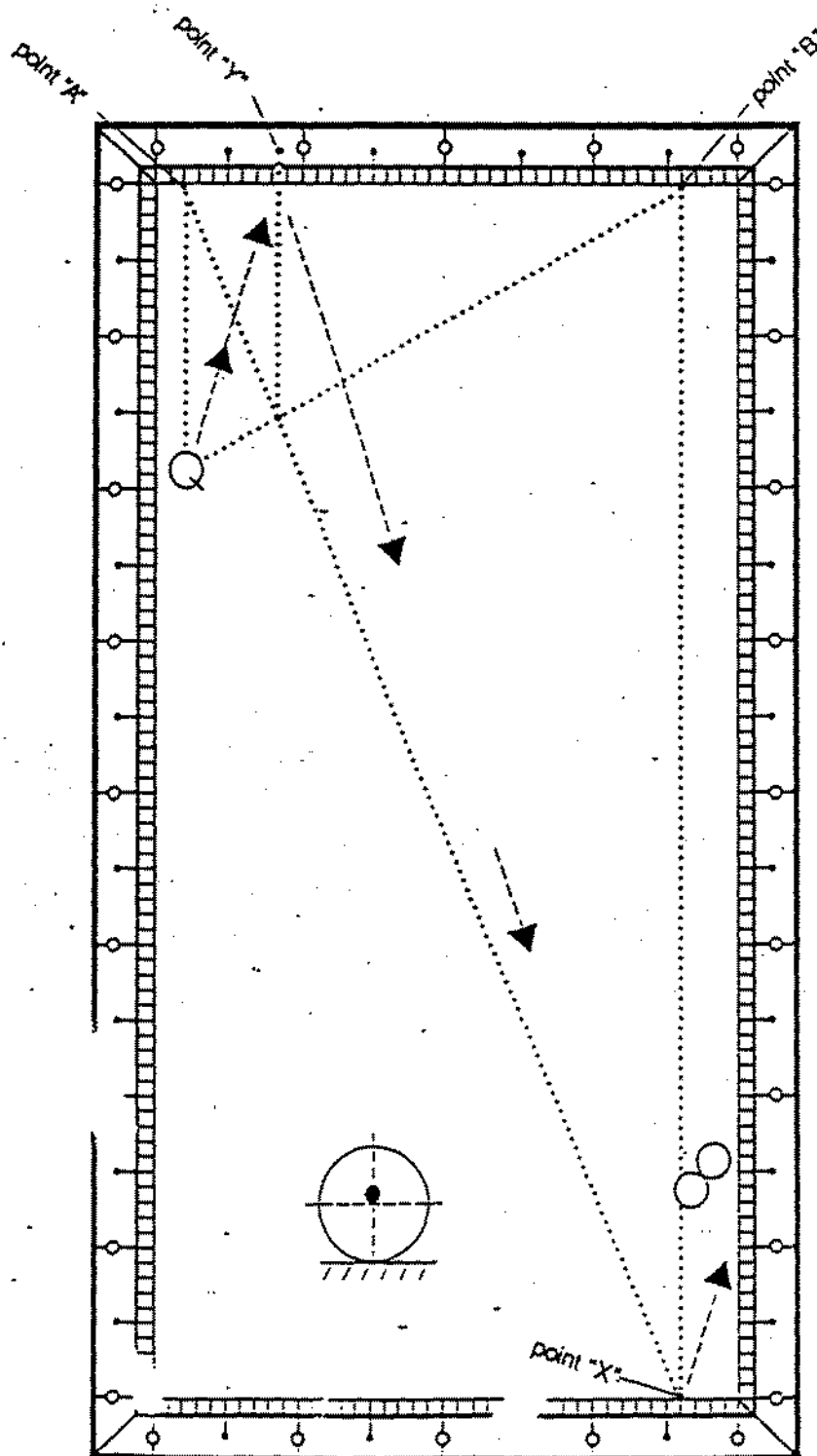
By viewing the shot, the 2nd rail hit spot is ^{ước lượng, đánh giá} estimated at point X.....draw a line from point X, to the first rail edge point (point B).

Another line is drawn from the center of the cue ball to the first rail ^{cạnh, rìa, lề, gờ} edge point (point A).

Another line is now drawn between point X and point A.....then a line is drawn between point B and the center of the cue ball.....find where these lines intersect and you have almost solved the problem.

All that ^{còn lại} remains ^{cắt nhau, giao nhau} is to draw a line from this intersecting point ^{giải quyết} ,to the first rail (point Y).....aim at the diamond marking at point Y, not the rail edge.

The shot is hit soft.....dead ball english.....level cue.....full follow through stroke.



Drawing 17

Bank Tickie

The shot selections appear ^{trên trái} bleak in drawing 18.....the cue ball and one object ball are frozen to a rail.....the bank tickie seems to be the best prospect, if you know the running lines.....triangulation is selected to map out this shot.

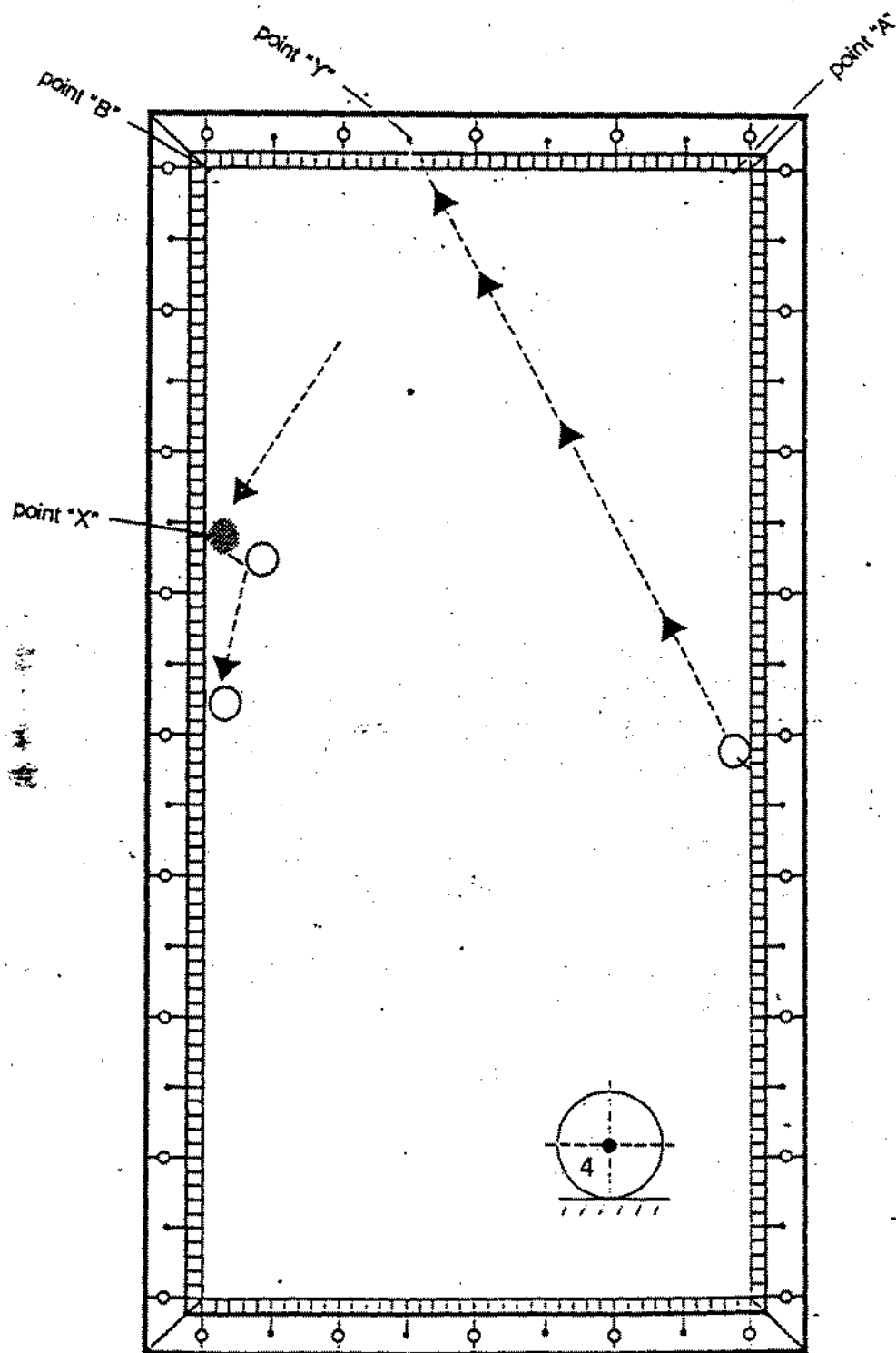
^{trên vòm, trên đất}
By viewing the shot, and using dead ball english, point X is selected as the 2nd rail hit point.

A line is drawn from point X to the first rail struck (point B), another line is drawn from the cue ball center to the same first rail (point A).

Connect a line between point A and point X.....connect another line between the cue ball (rail contact point) and point B.....mark a point on the table where these two lines intersect.....from this point draw a line to the first rail (point Y)....point Y is the diamond, not the rail edge.

Point Y is the new aim point.....dead ball english.....level cue.....four rail speed.....full follow through.

Once you decide on using this method, the time required to map it out should be less then 15 seconds.....less then 10 seconds, once you get familiar with this system.



Drawing 18

Chapter Two

Across The Table

Probably the shot that separates the best from the rest, is the across the table shot.....the top players are very accurate.

This chapter will provide enough information so you too, can execute these shots with aplomb.

The "*Basic Across*" method will pinpoint the running lines....on twice across the table shots also.

The "*Dive Back*" is my favorite..... you hardly ever see this shot missed by the best.....very forgiving.

The "*Spread 2.8*" and the "*Spread 1.4*", are mandatory in a players arsenal...there are too many occasions where this shot can be used.

The "*Max Across*"...."*Triangulation*"and "*Equal Angle*" systems, are important parts of a top players repertoire.

Easy Across

This first rate system deals with an across the table shot, that goes from a long rail, to a long rail, to a short rail.....and simply employs another system.

The 2nd rail aim point is often the missing link for ^{thiết lập} establishing the complete path to the billiard.....better yet, you are shown where the *side* of the cue ball hits the nose of the 3rd rail.

Estimate where the cue ball hits the nose of the 1st cushion (rail M)....
.....now imagine the cue ball frozen to rail M at that point.....place your cue stick through the middle of the imaginary cue ball and find the cue ball origin diamond number (rail M).....now employ the "Sid System" * to find the 2nd rail hit point.

Have the cue ball arrive at the 2nd rail with as little side english as possible.....the cue ball is hit one-half tip low and a minimum of side english.....medium speed.....elevate cue butt slightly.

nâng lên đầu, cần nhẹ, mỏng manh.

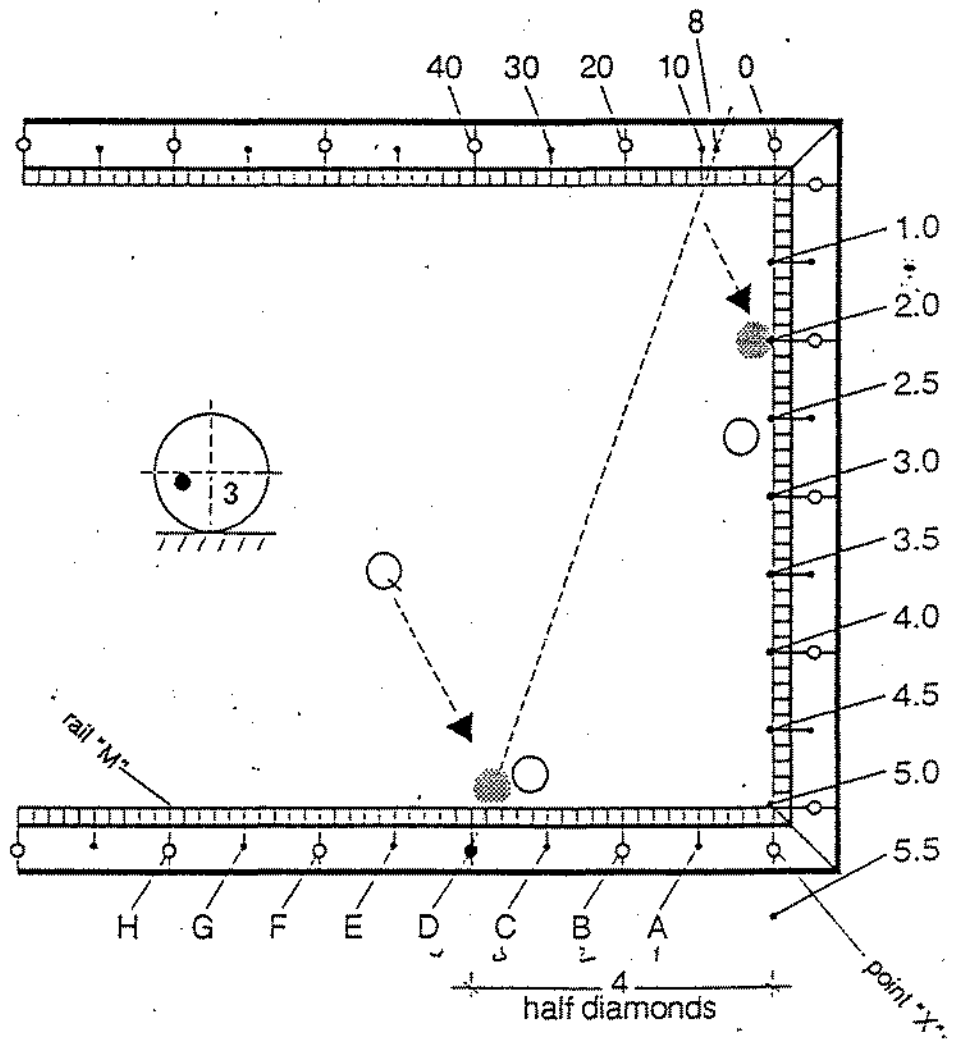
Drawing 19 selected the 3rd rail hit point (rail edge) at 2.0.....the cue ball origin is at diamond "D", which is 4 half diamonds away from point "X", each half diamond has a value of 2.0....multiply 4 by 2.0 = 8
.....this is the 2nd rail aim point.

Drawing 20 selected the 3rd rail edge hit point at 3.0.....the cue ball origin from point D, is 4 half diamonds from point "X".....multiply 4 times 3.0 = 12.....this is the 2nd rail aim point.

Drawing 21 has the cue ball going twice across the table.....use a 3rd rail hit point of 5.5.....point D is the cue ball origin, and is 4 half diamonds away from point "X", and each half diamond has a value of 5.5.....so, 4 times 5.5 = 22.....aim for 22 on the 2nd rail.

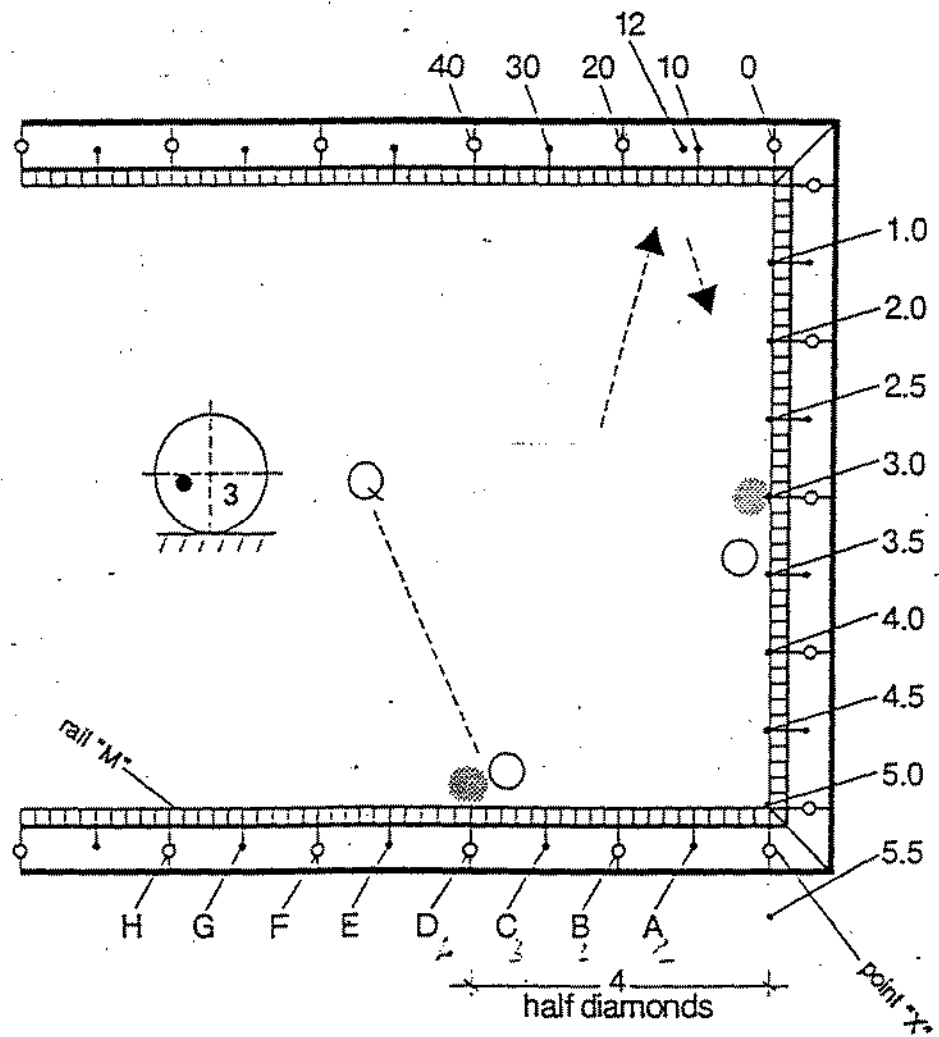
* See Chapter one, of the "Billiard Atlas"

Drawing 19



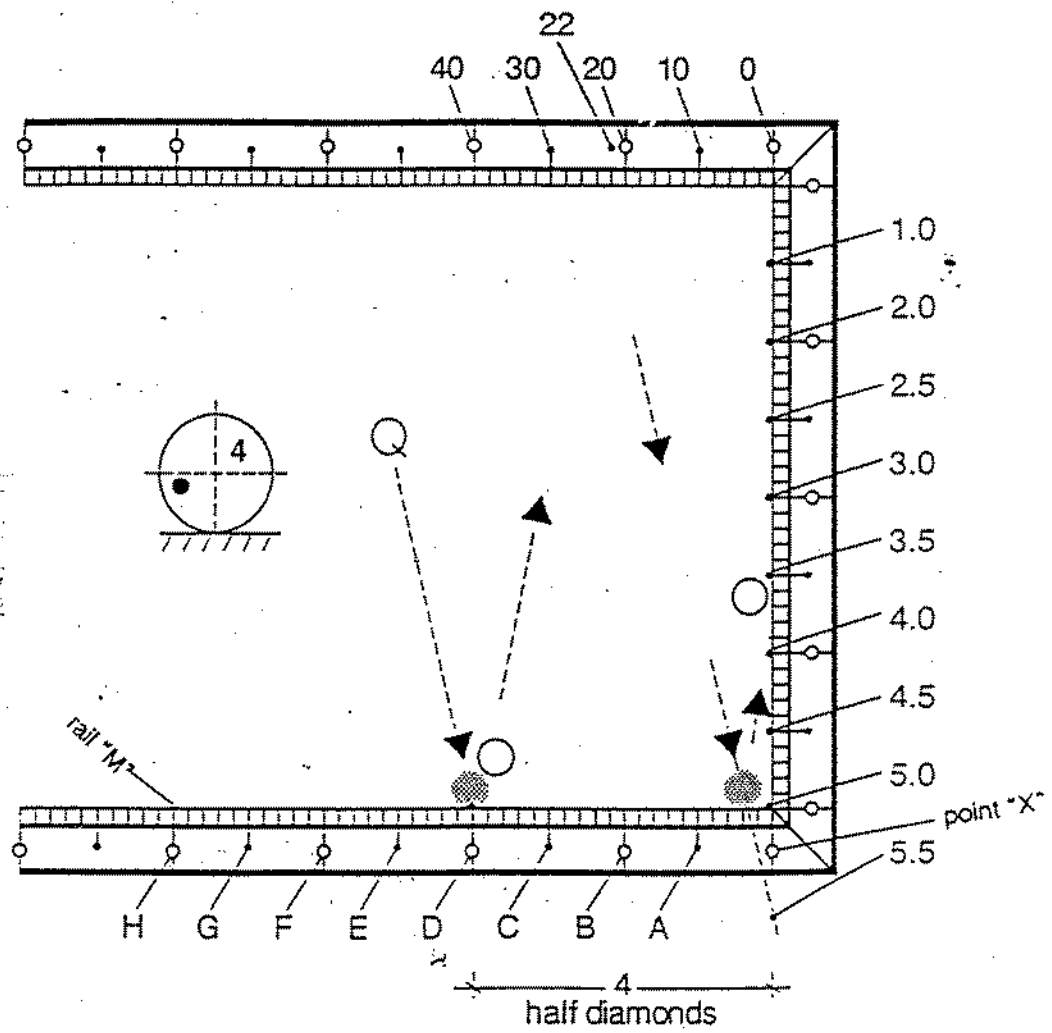
$$4 \times 2 = 8$$

Drawing 20



$$4 \times 3 = 12$$

Drawing 21



Dive Back.

This shot will warm the cockles of a players heart.....it's one that satisfies, because it looks much harder than it is.....it also makes twice across the tables shots much easier.

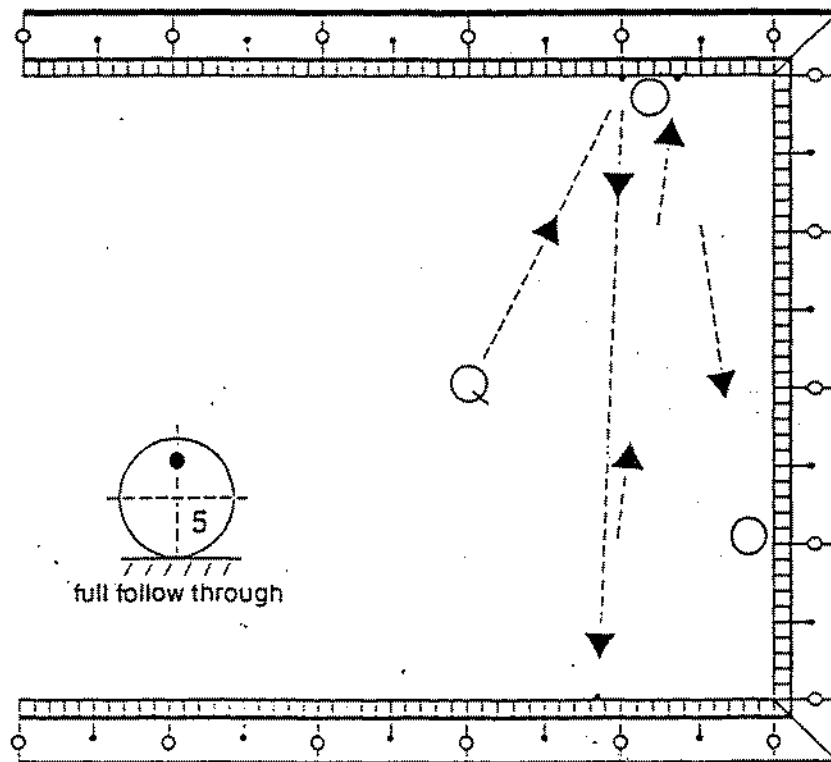
This technique was obtained during a lesson from *Richard Bitalis*.

Drawing 22 has the player selecting a twice across the table shot.....
this shot is all "feel".....the main technique in this shot is to drive the cue ball into the first object ball and go *backwards* to the 2nd rail, then have the cue ball *dive forward* into the 3rd rail.....cue ball english is high center, side english varies.....hit this with authority, lots of authority, because instead of a 3 rail shot, this can be a 5 rail shot.

More billiards are made from this technique than you can imagine.

Drawing 22

is *Q. A. and Q. T. A. L. I. S*



^{trở, căng, giăng ra}
Spread 2.8

Drawing 23 has the cue ball origin at point "A".....the first rail aim point is "B"using a certain stroke, and 4:30 english, the cue ball should return back to point "A".

This stroke is similar to a pool stroke when you want to stop the cue ball at the point of impact, and the cue ball is four diamonds away from an object ball.....it's not a draw shot, although low english is used.....this has a spread of 2.8 diamonds (maybe 2.4 with new cloth)1.4 diamonds forward, and 1.4 diamonds back.....if you use a full follow through stroke, the spread will be greater.

This technique has the cue ball "float" to the ^{mục tiêu, đích} target.....this type stroke has the cue ball ^{đến, đi đến} reaching the 2nd rail with little side english, and still ^{giữ duy trì} maintains an angle that is needed.....once the player has the feel for this shot, it is fairly easy to remember.

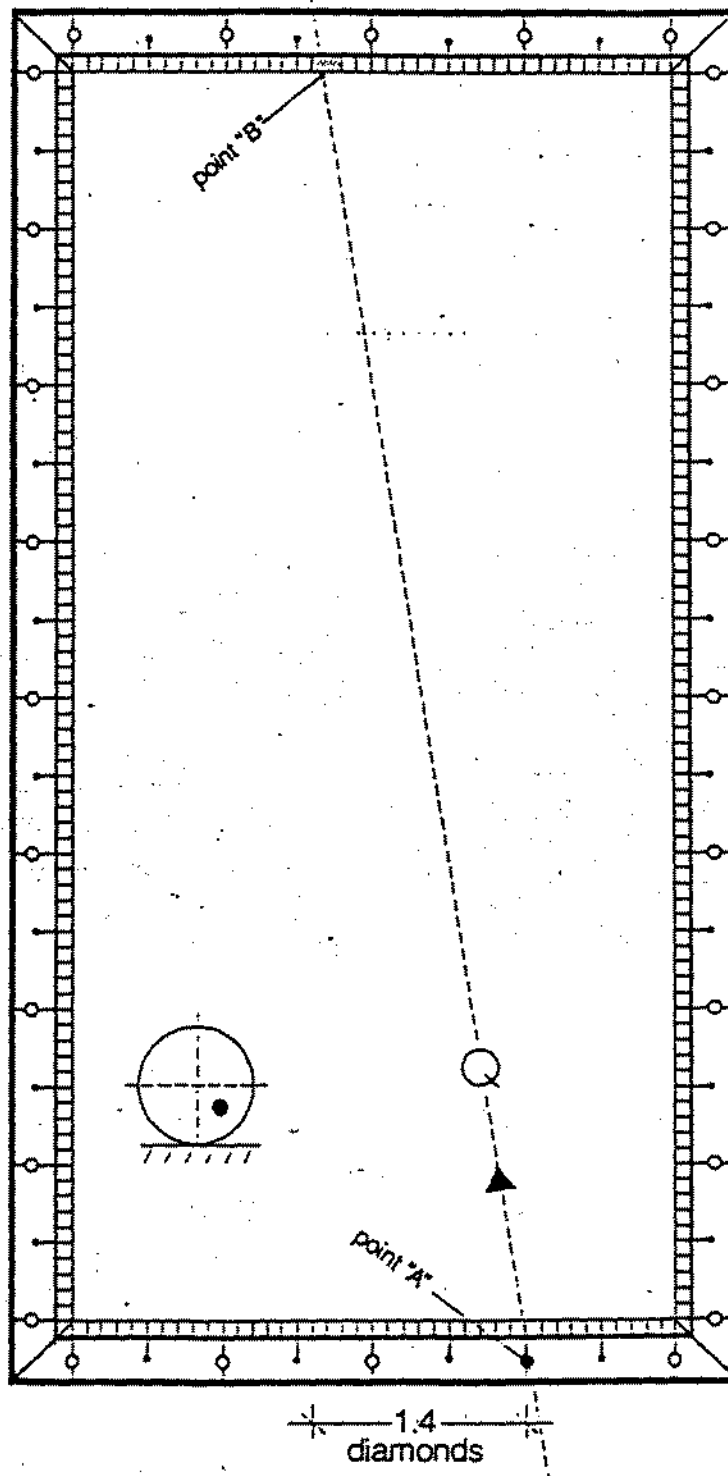
Drawing 24 indicates an across the table shot.....the cue ball is caromed off the first object ball, sometimes backwards, then forward towards point "X", on the 2nd rail.....if the player uses a long follow through stroke, the cue ball will have too much reverse english when it hits point "X", and this english will be ^(đi) harmful towards making the billiard, due to its unpredictable return. ^{hại, gây tác hại}

^{lợi ích, thuận lợi, khác nhau}
It is desirable to have the cue ball hit the point "X" with little side english, so the last object ball becomes a larger target.

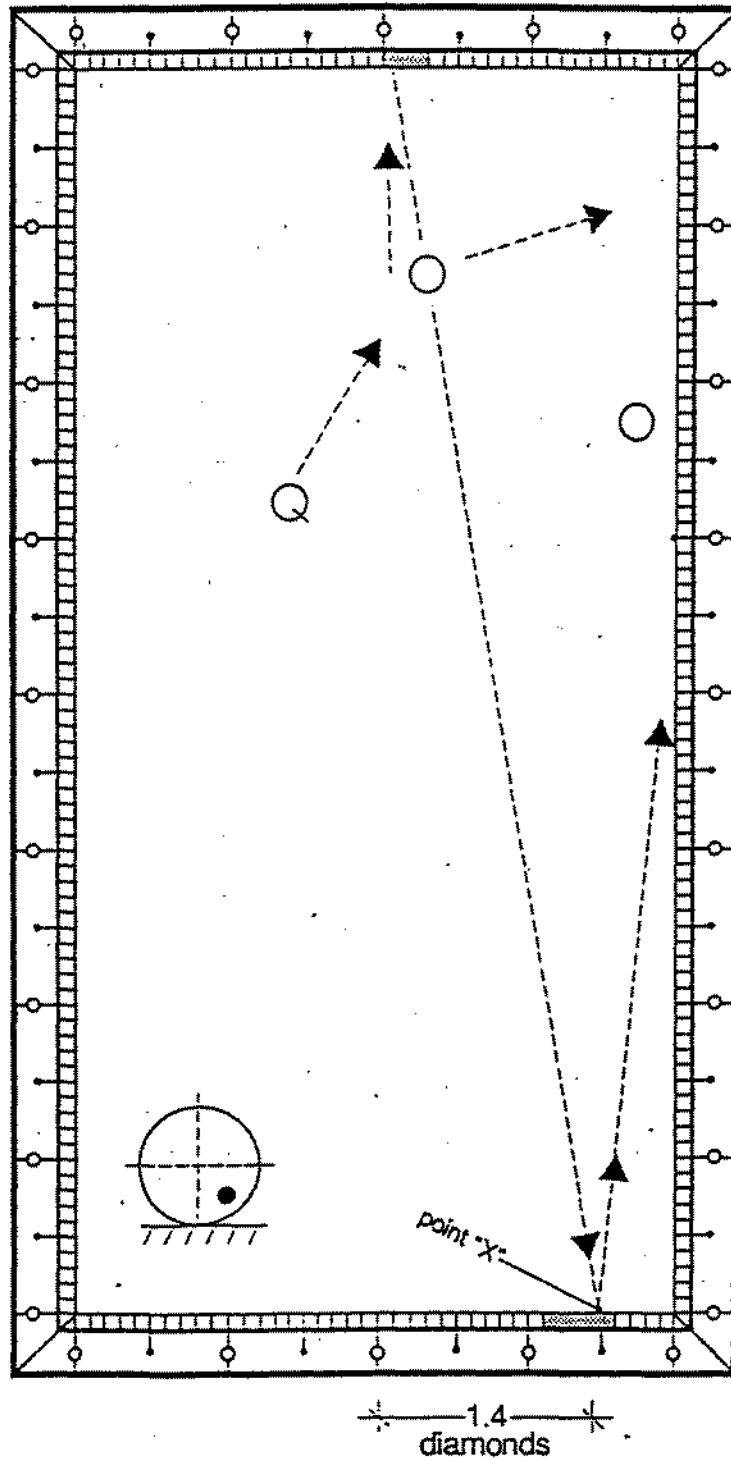
^{hào thành} To accomplish this, employ a "quick forward-reverse" stroke.....^{tăng thêm} raise the cue butt a bit.....the angle from the first object ball to the short rail is the variable.....this will ^{giảm thiểu, ngăn cản} restrain the cue ball side english from having its full effect, and you have a "float in" effect.

^{hiệu quả, tác dụng}
Drawing 24 is the exact exercise to practice...the player can become familiar with the stroke, and the angle of returns.

Drawing 23



Drawing 24



*When lagging for the break, try a five inch-
follow-through stroke and use a
center ball hit, with a half tip of high english*

Spread 1.4

Most room players will not try this shot.....they don't understand how it's done.....this is a variation of a shot that is shown elsewhere in this book.....except it is on the "small table", instead of the full size table.

Previously, it was determined that the spread going from short rail, to short rail, was 2.8 diamonds (see page 38)..... when using the "small" table, and going from long rail, to long rail, it is 1.4 diamonds. (maybe 1.2 diamonds with new cloth).

Here, a quick-forward reverse stroke is employed, because minimum cue ball english is needed at the 2nd rail hit point....and the angle will do the work.

Drawing 25 has the cue ball going from point "X" to point "Y" and back to point X.....the total spread is 1.4 diamonds.....going .7 diamonds forward, and .7 diamonds back.

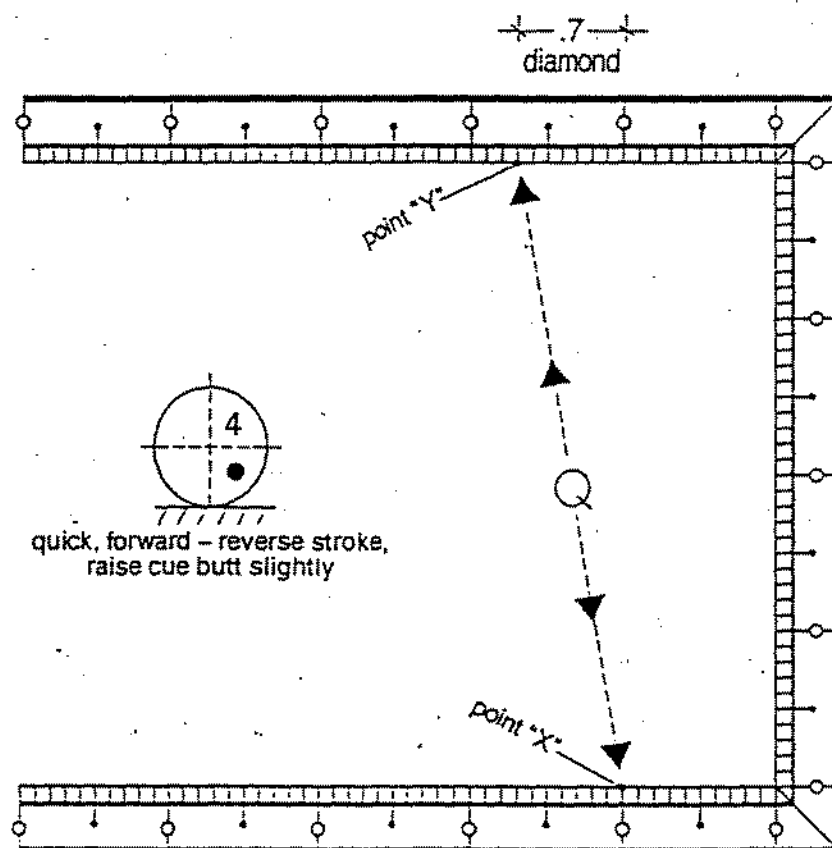
Drawing 26 has the cue ball caroming off the first object ball "backwards", to point "A".....the dashed line shows an estimated backward angle path, from point "A" to point "B", of .7 diamond (maybe .6 diamond) or a total spread of 1.4 diamonds.

How many times have you seen the shot shown on drawing 27,maybe a 1000 times ?.....now that you have a guide line for the running lines, you can't help but score more.....adjust the object ball hit if the cue ball is off a bit.....keep the stroke and english constant.

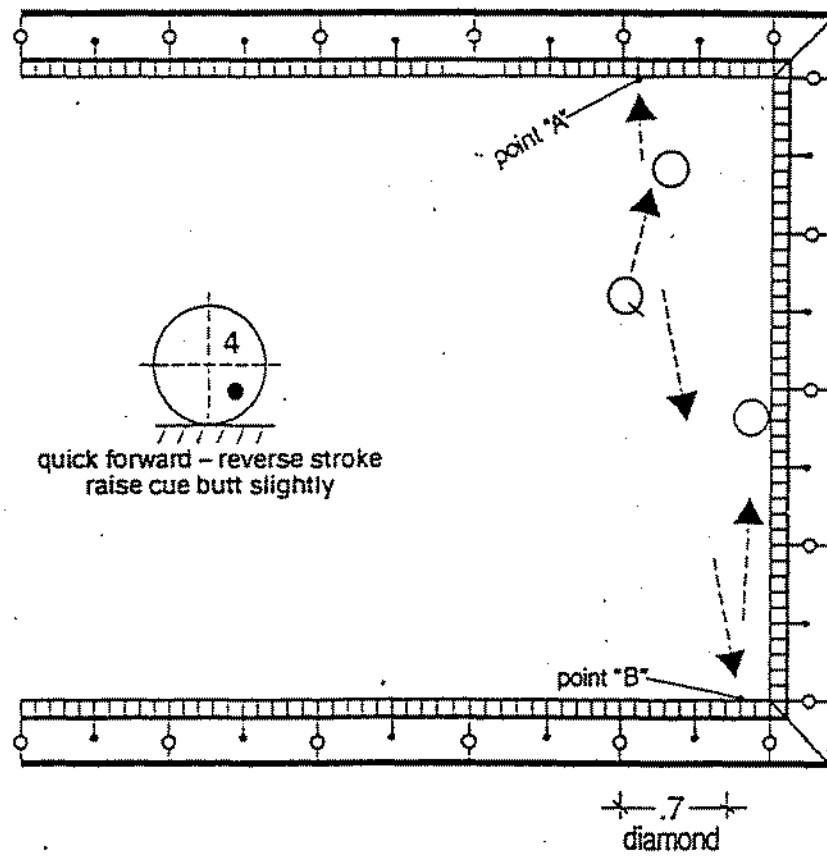
To remember all of this is easy.....you have a total spread of 1.4 diamonds.....and you must take into account the angle off the object ball to the 1st rail.

See page 38 for stroke and english information.

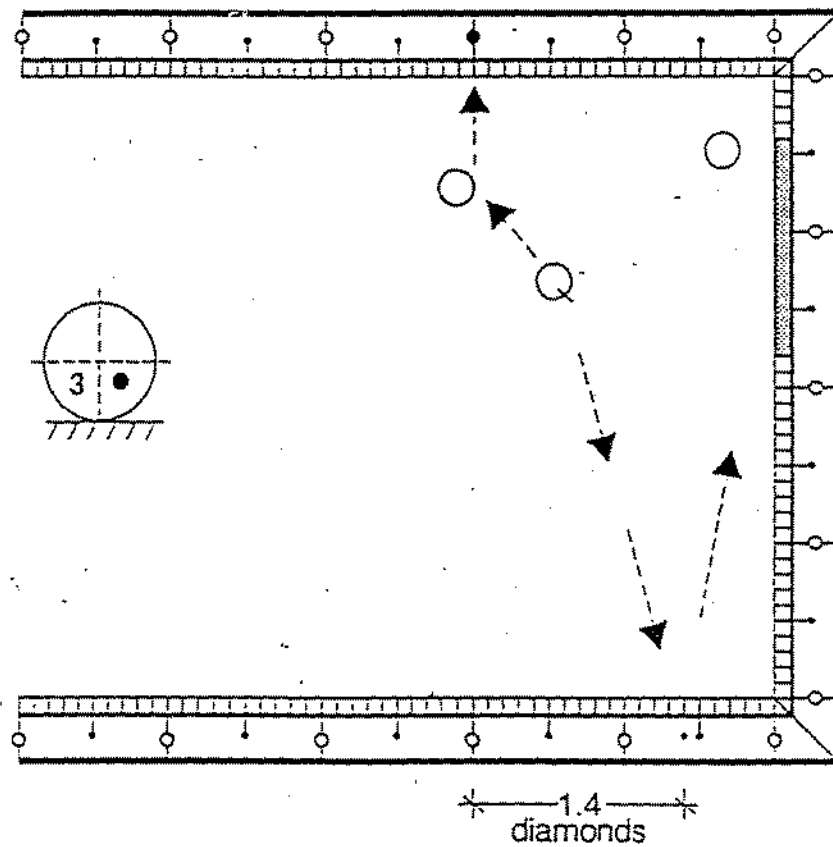
Drawing 25



Drawing 26



Drawing 27



Max Across

The "Billiard Atlas II" ^{ke'tro, n'oi đ'au} mentioned these tracks, and drawing 28 show that when using maximum english, the spread is 2 diamonds.....thi ^{si thay doi} varies with equipment.....on your table it could be 1.8 or 1.9. ^{trung bi, dung cu}

When the cue ball caroms off the 2nd rail, much english remains.....this is needed for the across the table shot. ^{con lai, con lai}

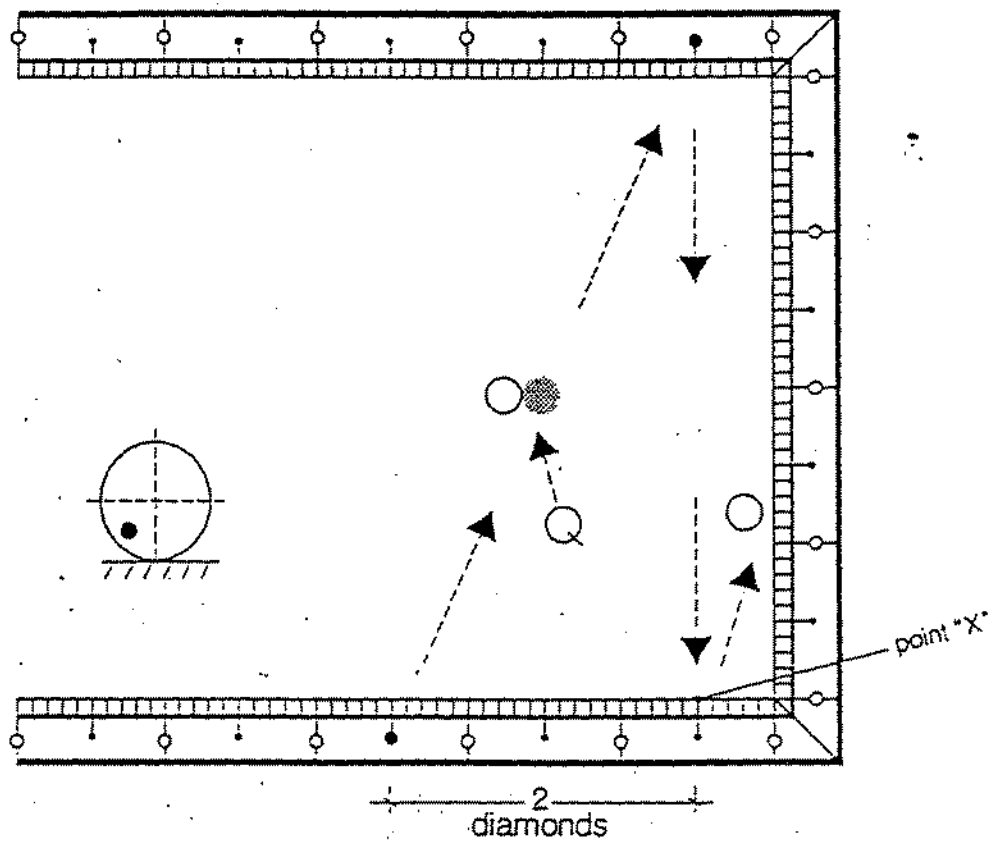
^{tanh gia, uoc l'ong} Estimate the 2nd rail hit point and call it point X.....just pretend your cue ball is ^{lam thay lai} frozen to the hit side of the first object ball.....then ^{gi'oi vo, lay co} rotate your cue over the center of the ^{a co th'oi, ab} imaginary cue ball, until you find the two diamond spread across from point X.....this is your first rail hit point. ^{voi luc f.}

^{co trong y th'ing} This drawing has an ideal set up.....if the cue ball, imaginary line is located 2.5 diamonds away from point X.....^{neu ch'ung} adjust the first rail hit point by .25 diamond, and aim at .75 on the first diamond.

^{nhon, nhut} Load up the cue ball with side english, and use a full follow through stroke.....^{h'ung va} level cue.....don't baby this shot.....this has to be stroked smoothly. ^(ed) ^{cun beng, t'eu}

When trying this shot the long way of the table, use a four diamond spread.....and a full follow though stroke.

Drawing 28



Max's Kin

This is related to the example shown on page 46, although this is not an across the table shot, it never the less fits well here.

The prospects for a billiard ^{thực vậy, quả thực} indeed look ^{vừa, hợp, thích hợp.} dismal.....why not try the shot that is shown on drawing 29 ? ^{thì tâm (khí thần)}

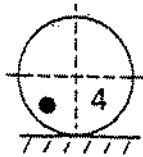
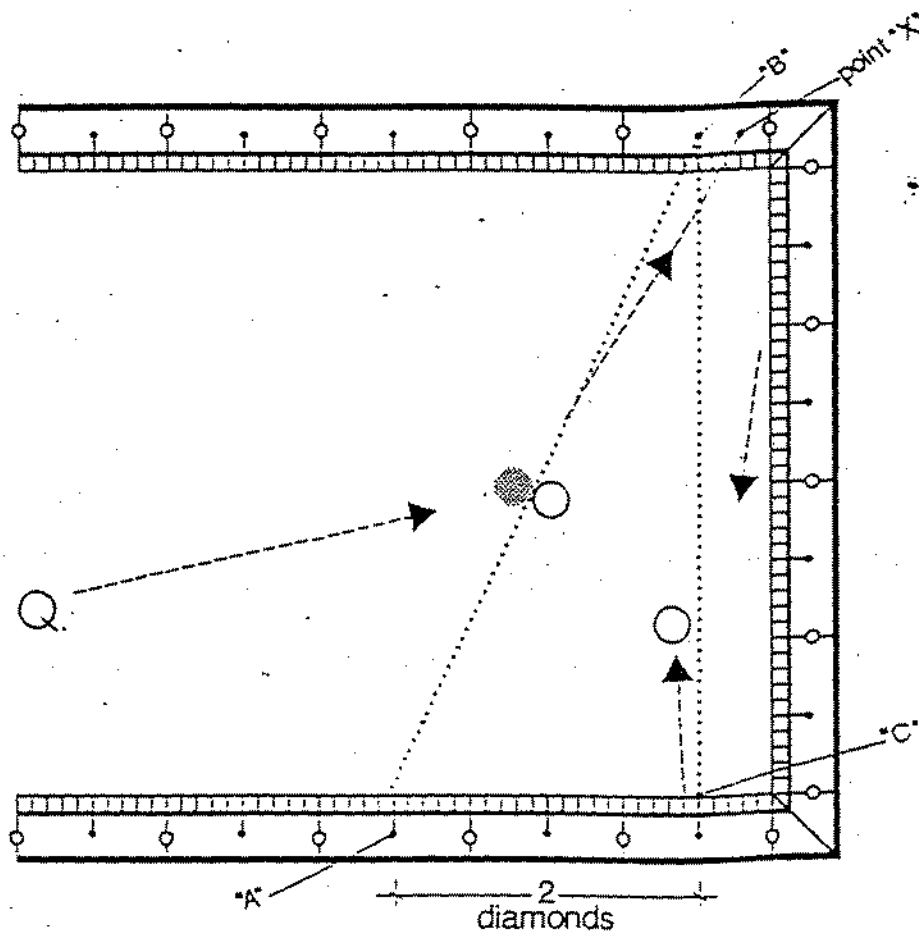
^{hiệu tượng} The triangle that goes from A to B to C, is the path the cue ball follows, when maximum english is ^{đánh vào} applied to the cue ball..... with a follow through stroke.....a 2 diamond spread.....this is noted to show the cue ball path when point 3 is aimed at.....but this will not make the billiard.

Estimated point X is to be aimed at.....this estimated track ^{thay thế, dời chỗ} shifts the triangle, and now goes from points A to X to C.....this maintains the two diamonds total spread. ^{giữ, duy trì}

^{thrust} The cue ball should slide into the billiard with reverse english.

Note: This shot can also be played with a "jab or pop" stroke, with low center cue ball english.....the cue ball travels most of the way with dead ball english.

Drawing 29



Triangulate Across

Another way of ^{đánh gần}approaching this across the table shot, is to use a triangulation system.....an old system that works great.

By ^{quan sát, nhìn từ}viewing the ball setup in drawing 30, the 2nd rail hit spot is estimated at point X....draw a line from point X to point B (rail edge).

Pretend the cue ball is frozen to the first object ball (on the hit side of the object ball).

A line is drawn from the center of the imaginary frozen cue ball to point A (rail edge).....then another line to point B.

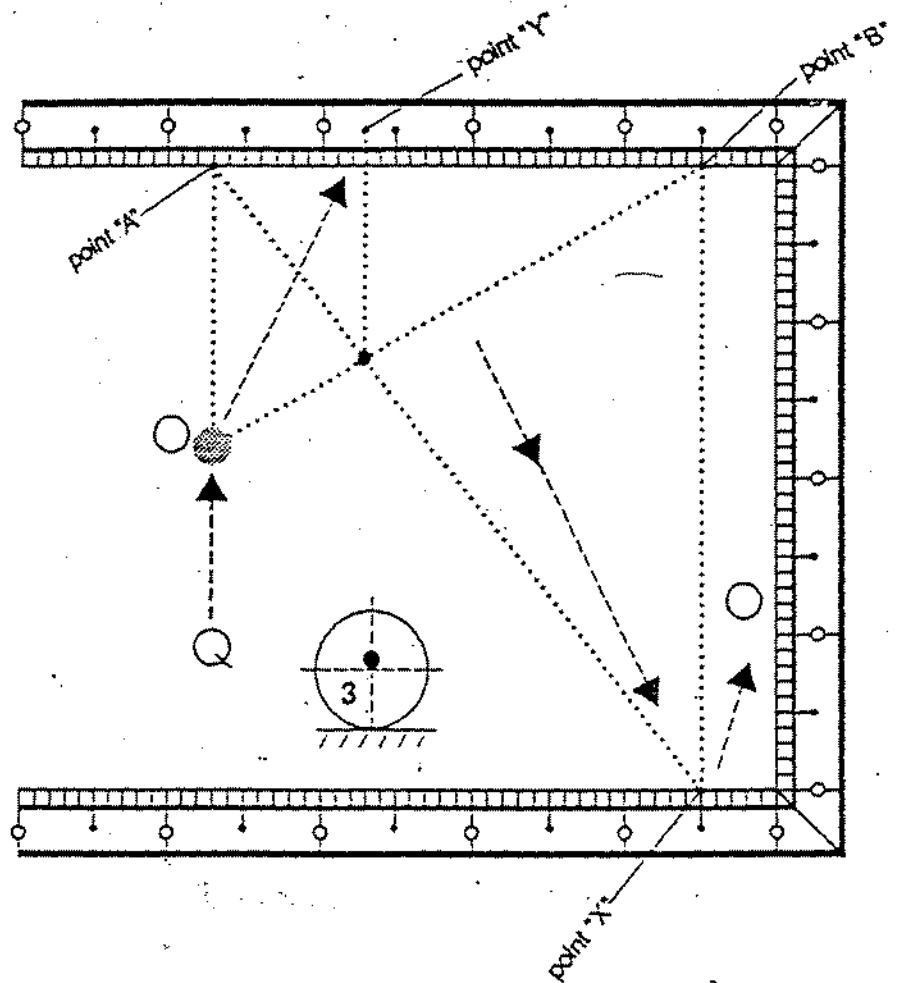
Another line is drawn between point X and point A.....find where this line intersects the imaginary cue ball to point B line, and you have the answer. ^{điao nhau, cắt nhau}

Draw a line, from this intersection point, to point Y.....this is the new ^{điểm}aim point for the cue ball, after it caroms off the first object ball.....the diamond marking at point Y, not the rail edge.

Shoot soft, with dead ball english....level cue...full follow through.

Knowing how to triangulate, is important.....slow at first, but no problem after some practice.

Drawing 30



A Harker Triangle

Parallel Across

song song, thẳng thừng, thẳng tắp.

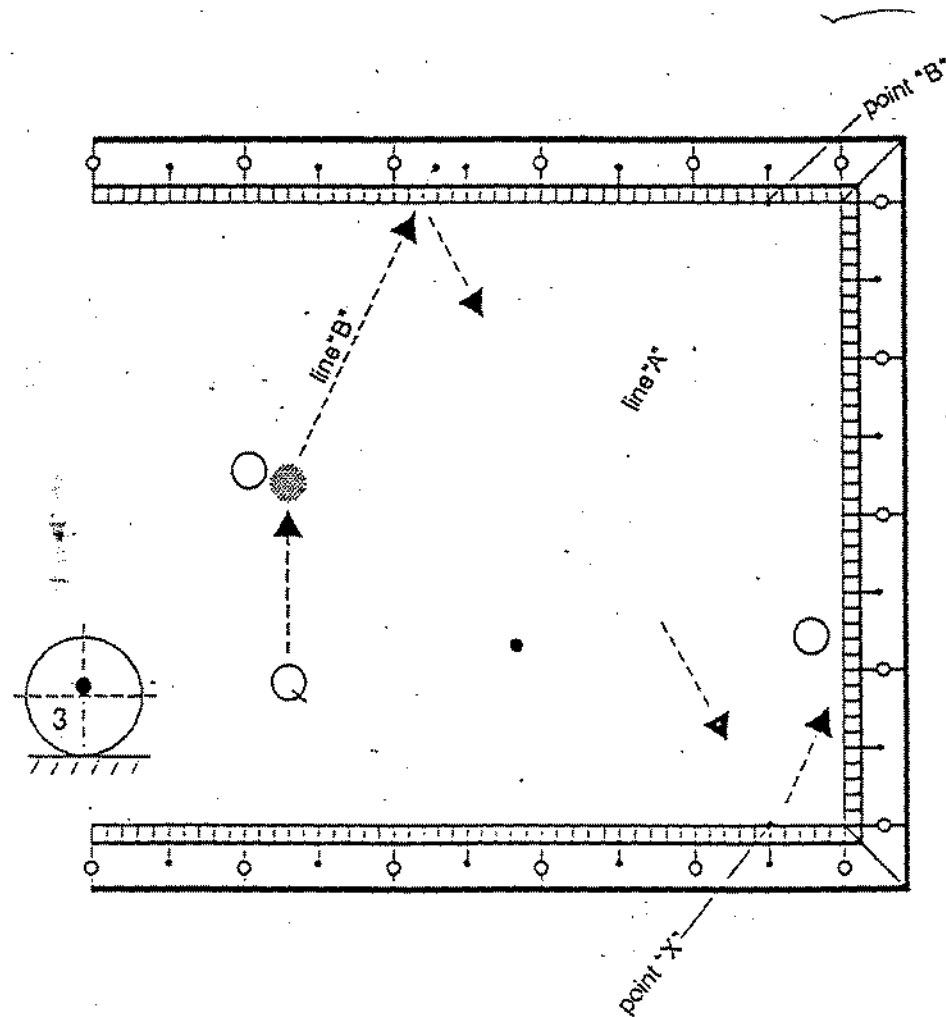
Drawing 31 has the balls arranged exactly as the ^{trước (p)}previously shown drawing on page 50 (of triangulate across).....this is approached with a parallel method of determining the first rail hit point.

^{ước lượng}Estimate the 2nd rail hit point, and call it point X.....draw a line from point X, to point B. ^{xác định, thật rõ}

Imagine the cue ball location where it comes in ^{chạm, tiếp xúc}contact with the first object ball.....a line is drawn from the center of the imaginary cue ball location, to the ^{muốn, ý cầu}desired 2nd rail hit point X.....find the half way point on this line, and from this point draw a line to point B.....name this line A.

Draw a line from the center of the imaginary cue ball location, parallel to line A, and mark the first rail.....this is your aim line.

Drawing 31



A Keweenaw Parallel

ngang, bằng, thuận

Equal Angle ^{góc}

An across the table shot is the selection here.....drawing 32 ^{liên tả} reveals how to map out this shot.....and with ease. /i:z/.

sắp xếp, vạch ra

thì dễ dàng

By viewing the shot, estimate the 2nd rail hit point (point X).....then pretend the cue ball is frozen to the first object ball (on the hit side of the object ball). ^{góc}

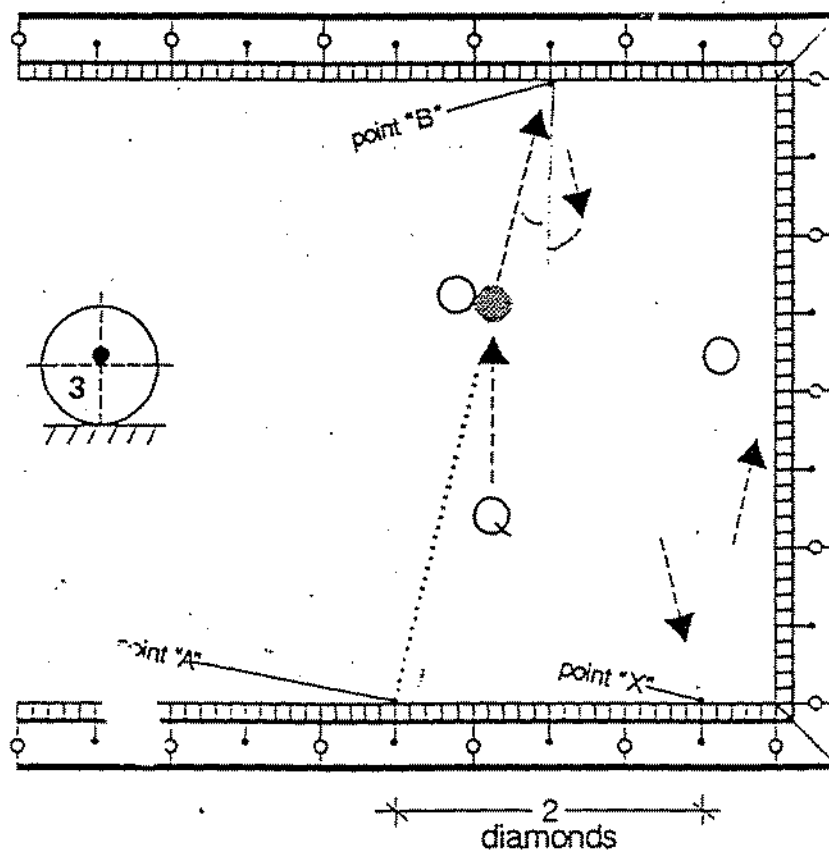
đặt bàn

Rotate your cue over the imaginary cue ball center, until you find the correct angle.....having the angle into the first rail, equal the angle going out of the first rail, and hitting point X.

It seems that a path from point A, to point B, is half way between point A and point X.....that is the new aim point.....shoot soft with dead ball english.....level cue.....full follow through stroke.

Often, this method is quicker than triangulation, or paralleling.

Drawing 32



Angles of view

Wow's Cousin

^{học bài}
^{đọc thử} If you refer to page 100, please note the ^{điểm} technique regarding the ^{điểm} particular shot.....use the same methods for the shot shown in the drawing 33.

This is an excellent example of getting out of trouble, using an across the table shot.

^{nâng lên} Elevate the cue butt.....^{ấn} cue ball english is center and low.....a quick stroke (jab or pop stroke).....^{gặp phiền phức} use a full hand ^{gặp phiền phức} grip.....^{ấn chặt} grip pressure may vary.....^{thay đổi} grip is a ^{ấn chặt} bit forward.....full hit on first object ball.....hit the rail and ball at the same time.

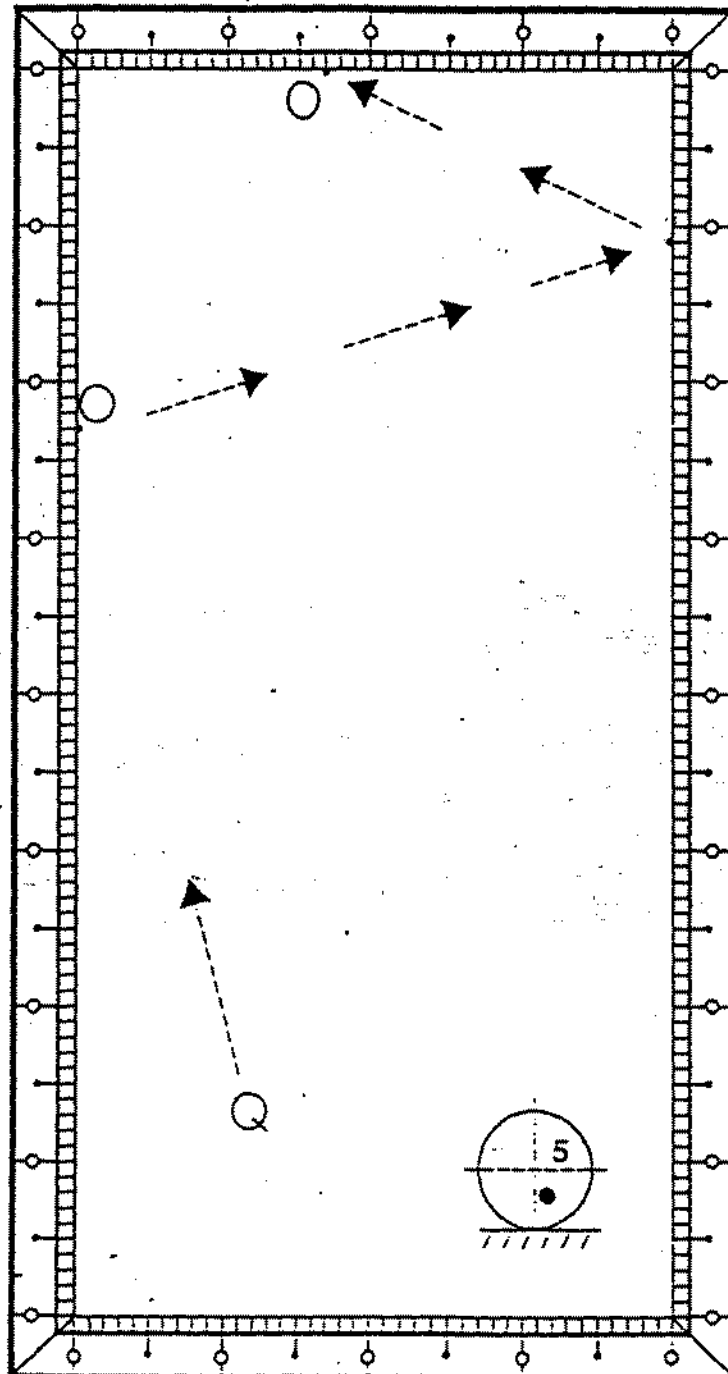
If you think about it, a few ^{hiệu ứng} variations in english can accommodate different effects, such as:
^{điểm qua, điểm qua}

A little left hand english can have the cue ball come off the 2nd rail with a little running english.

A higher cue ball hit could create an ^{hiệu ứng} arc between the 1st and 2nd rail, which is good for a three rail across the table shot.

^{hiệu ứng} A combination of the above could produce yet another effect.

Drawing 33



Chapter Three

Some Gems

Quelques conseils fabuleux

For those of you who are uncertain how the great players have historically approached this game, the clearest explanation is from the great *Willie Hoppe* who once described this best with,

"A pro plays mathematically by feel".

For a better insight to "feel" and "calculations" see chapter nine, and tune in on the mental game.

The "*Kirikaeshi System*" comes from Japan.....a first-rate method to know the 3rd rail hit point.....and to better know how much to adjust the hit and cue ball english.

Techniques usually take a back seat to systems, but are equally important.....one of the best examples of how a player can improve quickly, is shown here.....with a bit of technique knowledge, a common shot is tamed.....see the "*Frozen Ball*" pages.....if you ever question the importance of study, just spend a little time with this, and check out the results.

Kirikaeshi System

This ^{by dictionary} marvelous method of making a billiard comes to us from Japan and is named "Kirikaeshi", which means, "turn about".

This was ^{by dictionary} donated by my "internet" friend, *Nakatani Tomoaki* thanks to his translation work, the billiard world has inherited some first-rate information.

The numbers are easy to remember and provides the player with guide lines when hitting the "inside of the ball".....the angles range from a medium angle, to a short angle.

Drawing 34 has the cue ball origin at 50.....and the first object ball located at 30 (first rail hit point)..... use three o'clock cue ball english.

Drawing 35 has the cue ball origin at 45.....and the first object ball located at 30 (first rail hit point).....same english.

The method of calculation, for all examples, is as follows:

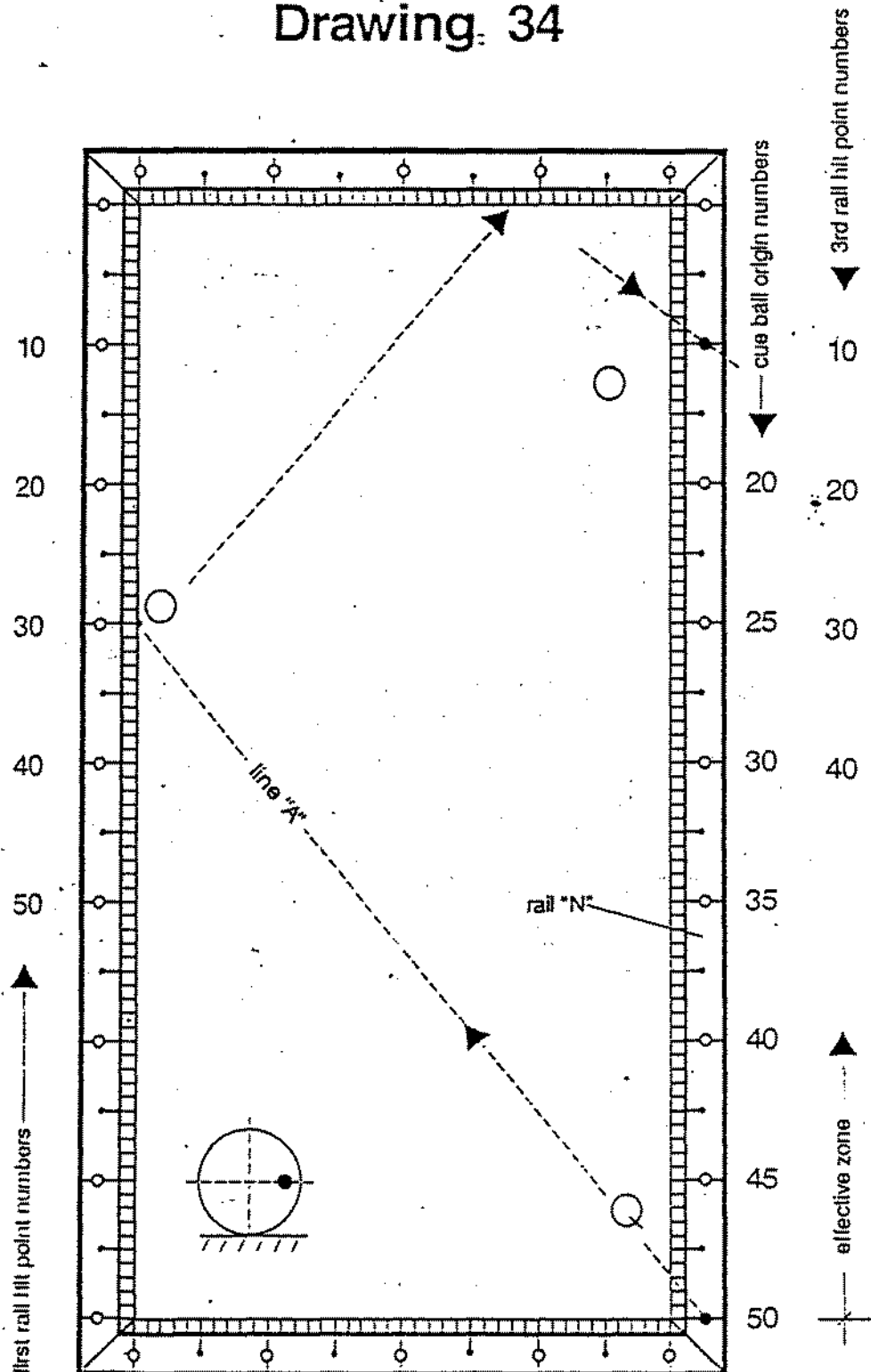
"Cue ball origin.....^{turn} minus the 1st rail hit point.....minus 10.....equals the 3rd rail hit point."

Drawing	Cue ball origin	1st rail hit point	minus 10	3rd rail hit point
34	50	30	10	10
35	45	30	10	5

Notice that rail "N" has two sets of numbers.....the "cue ball origin" numbers, and the "third rail hit spot" numbers.....observe the ever present, "minus 10".

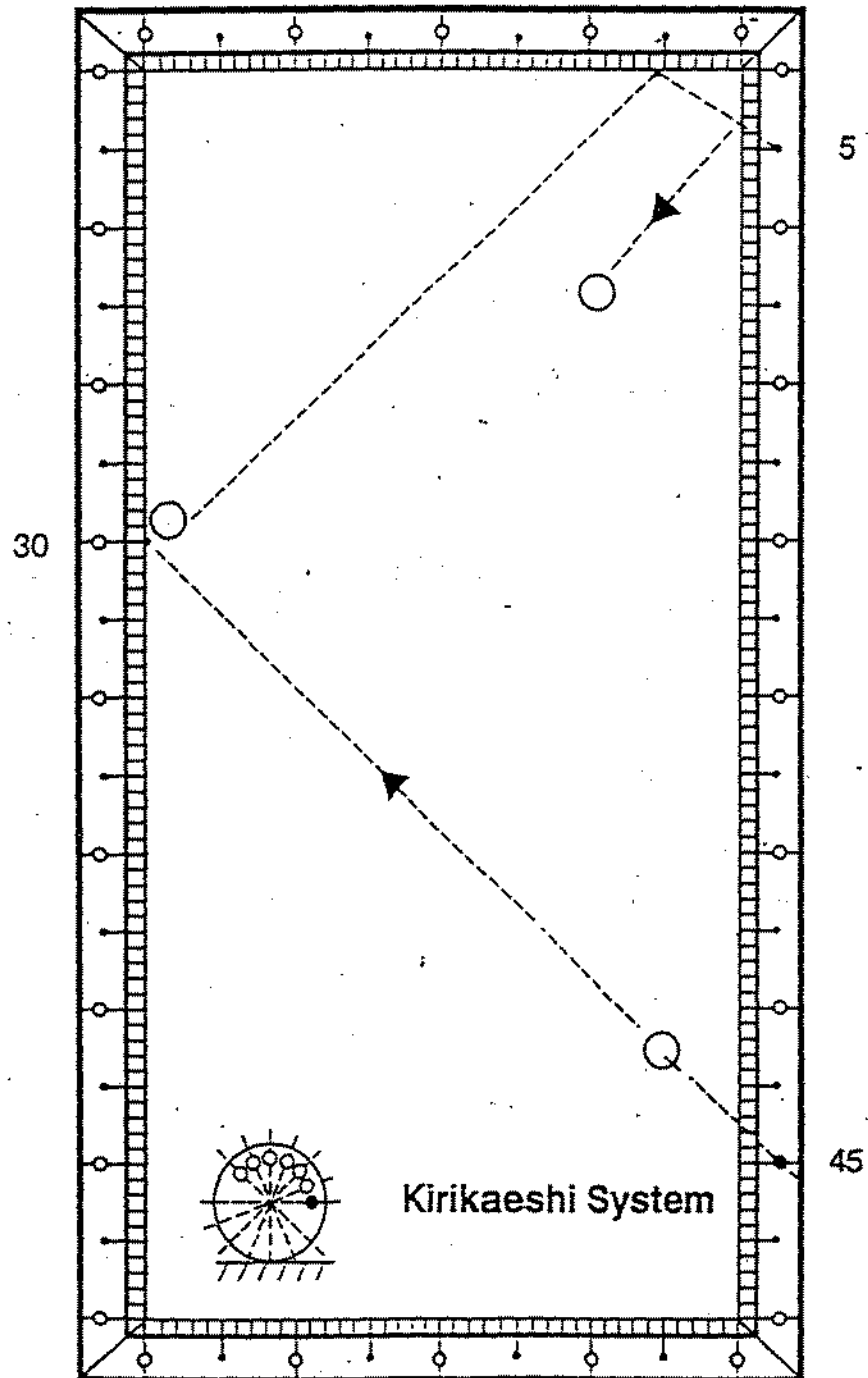
turn the

Drawing: 34



8. - 3 - = 10
Départ - Arrivée

Drawing 35



$$45 - 30 = 15$$

*Too much side english influences the path
of the cue ball, causing it to hit
a fraction of an inch away from the aim point.*

*Avoid extreme english.....try to keep within a
cue tip and a half, of the center of the cue ball*

Frozen Object Ball

When the first object ball is frozen to a rail, it's difficult to have the cue ball travel as you ^{mong muốn} desire.....here are some guidelines.....the cue ball must be driven into the first object ball with draw, so the cue ball has a minimum of running english off the first cushion.....be careful not to over draw.....speed control is important.....try to omit *side english*.....the mechanics of the stroke are simple. ^{bỏ bớt, bỏ quên}

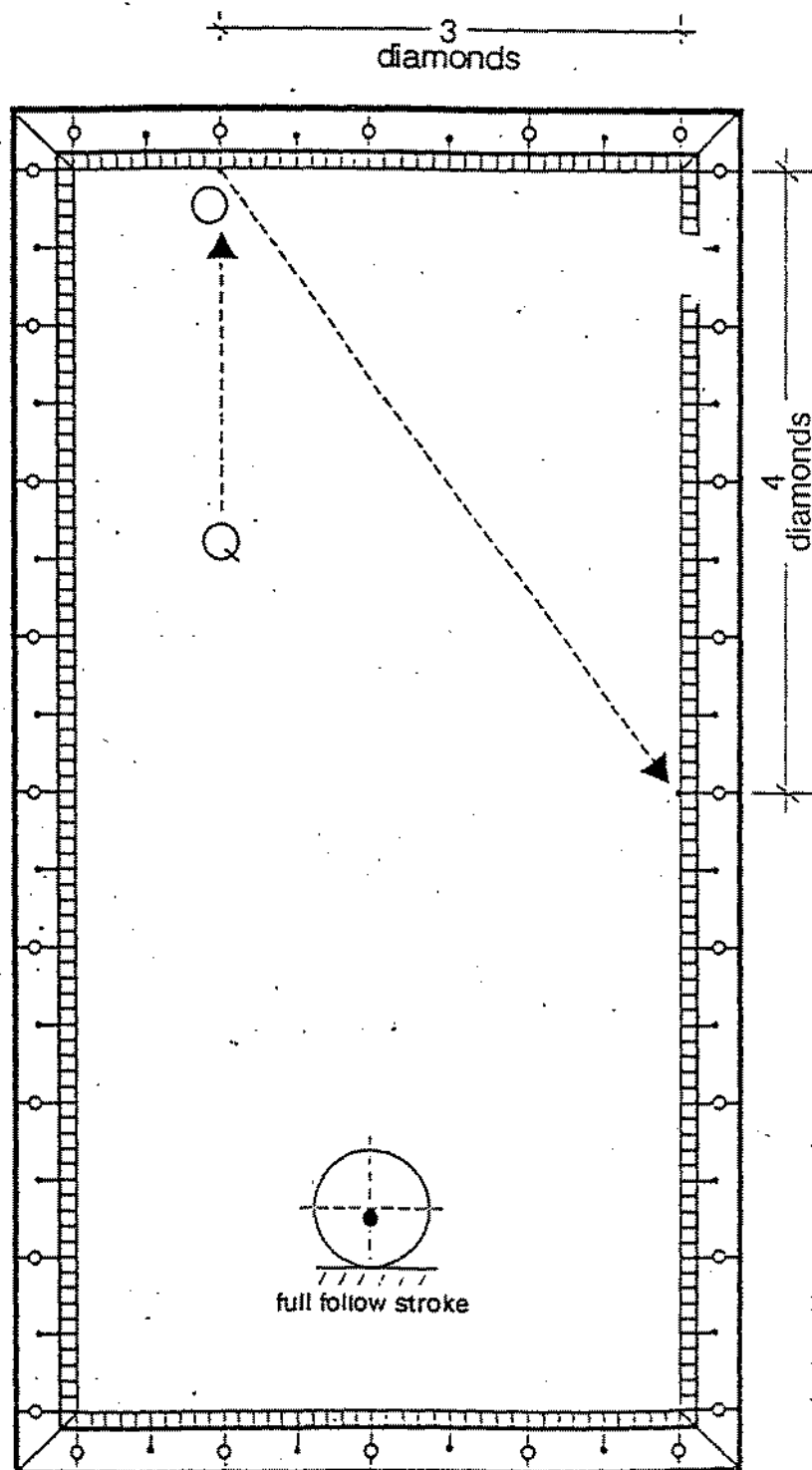
Drawing 36 indicates the same ball arrangement as drawing 37, but notice the two ^{chỉ ra} separate cue ball distances.....drawing 36 requires a full follow through stroke.....less draw english is used, and the full follow stroke will keep this small amount of draw, until the cue ball has reached the first object ball. ^{mỗi cái xếp}

Drawing 37 has the cue ball farther from the object ball, so more cue ball "skid" is required.... deeper draw is used to ^{giữ} retain "skid" on the cue ball, and the jab stroke will ^{làm nhẹ đi, làm yếu đi} soften the draw....this will "control" the cue ball english.....the resulting angles, using each of these hits, are shown on both drawings.....these angles will be described in terms of a triangle..... short rail diamonds and long rail diamonds, being legs of the triangle. ^{đến}

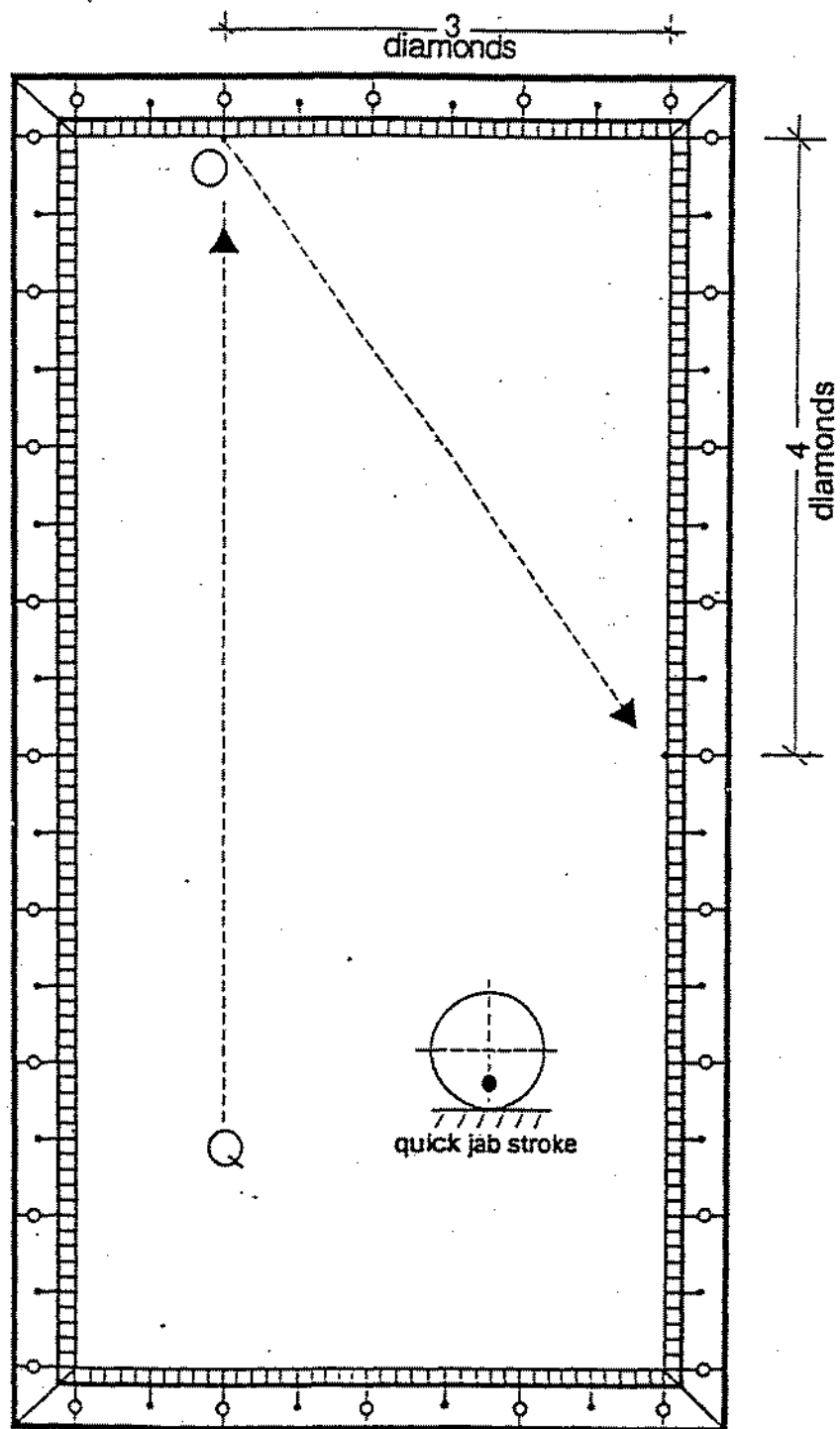
Both drawings employ ^{vi dụ} a 1/4 object ball hit, 4 rail cue ball speed and the resulting angles are, 3 short rail diamonds, to 4 long rail diamonds.....if the cue ball speed is ^{tăng lên} increased to 6 rail speed, the resulting angle is longer....probably 3 short rail diamonds, to 5 long rail diamonds for the triangle....too much draw will make it longer yet.....the object is to control the shot.

When the cue ball is near the first object ball, an optional approach is taken.....see drawing 38.....again the "quick" stroke is used, and a 1/8 object ball hit (or less) is required, along with 4 rail speed.

Part 2 to Book 2

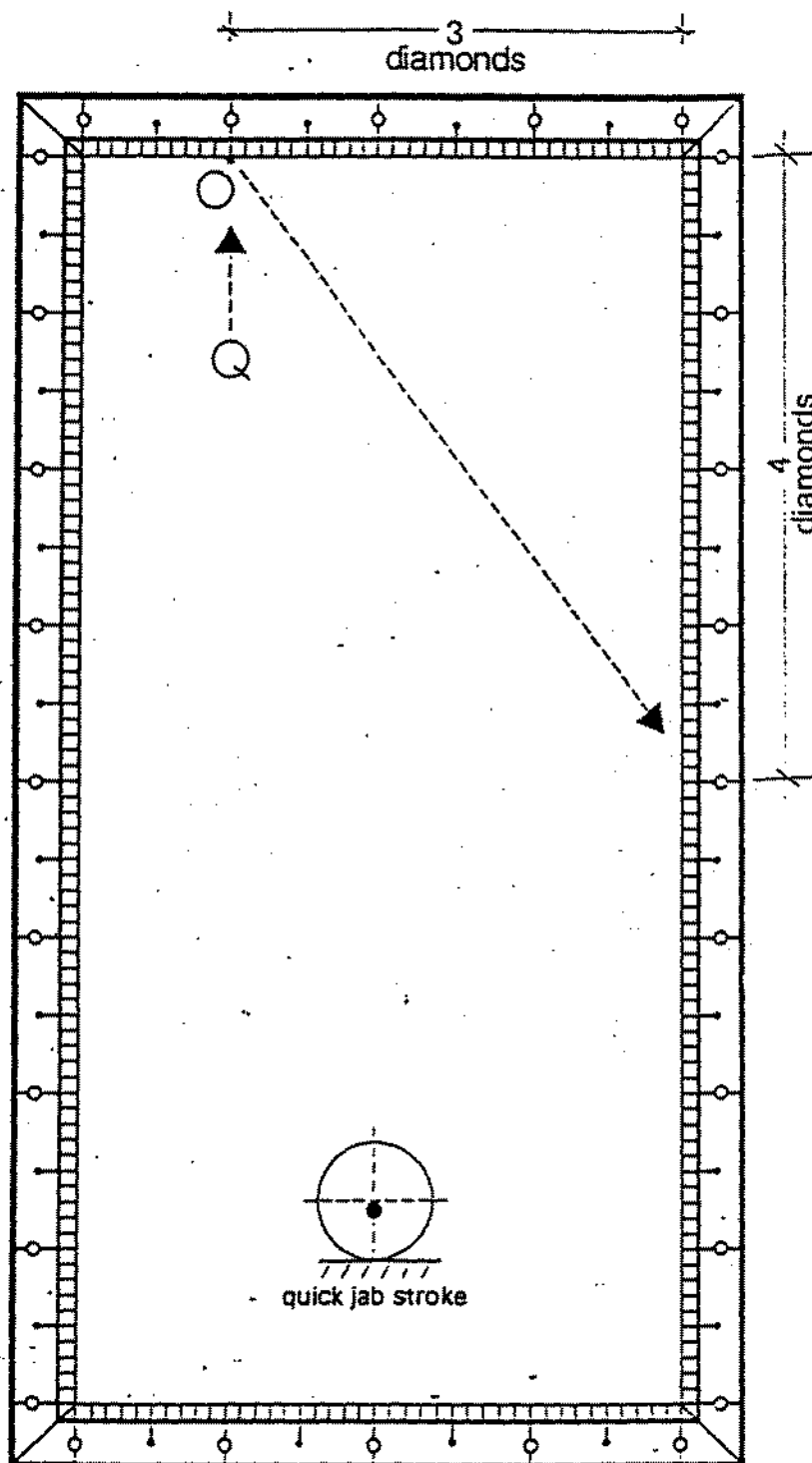


Drawing 36



Drawing 37

Drawing 38



More Frozen Ball

Drawing 39 has the first object ball in a more difficult place, and a 1/4 object ball hit would be incorrect.....use a 1/8th ball hit, with four rail speed.....the result of the cue ball path is; an angle of two short rail diamonds, to four long rail diamonds.....with 6 rail speed, the angle is two short rail diamonds to six long rail diamonds....a "quick jab" stroke is employed.

With these angles as guides, the running lines are better seen.....the cue ball deflection/curve has to be checked (see page 112).

đường cong

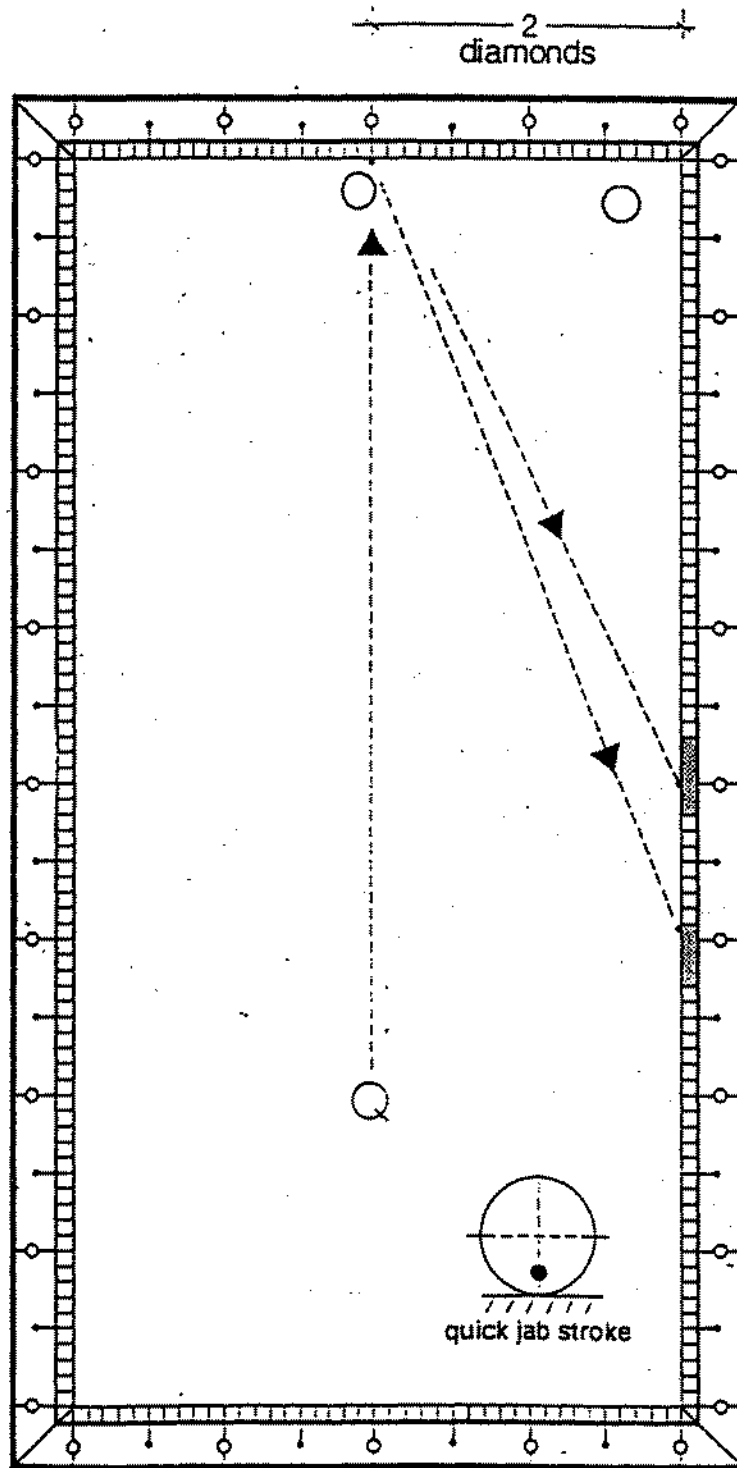
When using right hand english, a strong stroke on the cue ball will have the cue ball go near the target.....with a soft cue ball stroke, it will be to the right of the target. *mục tiêu, đích*

Try not to obtain rolling, or skid cue ball english, at the time of object ball contact.....too much back spin will hurt the shot.

tiếp xúc

xoay tròn (xoay) lăn bóng

Collier to Band



Drawing 39

Chapter Four

End Rail

Through the years, I have been driven mad watching billiards made with an end rail system.....never knowing how it was calculated..... I was constantly experimenting to find some answers and found little.....whatever these players knew, they kept to themselves.

With the help of billiard players from Brazil and also Japan, we now have end rail hit point knowledge.....in fact there are two great ways to map out this shot.....the "*Blue Moon*" and "*Blue Moon Reverse Back Out*" are dead ball systems.....the "*Toyko Connection*" is the running english version.....this chapter is devoted to the study of end rail hit points.

Now when this shot comes up, you'll be more confident.....even when you miss, you will hear some oh's and ah's.

Table "slide" is an important ingredient in finding these hit points.....knowing your table is a must.....so check it out.

Toyko Connection

Out of Japan comes this ^{số hàng, số đường} obvious, but elusive, end rail system.....you are going to employ a basic diamond system called the *corner five* system, to work in harmony with this.

^{hệ hòa hợp, hòa hợp} Drawing 40 notes the typical *corner five* long rail numbers.....the cue ball origin numbers range from 1.5 to 5.0.....the first rail numbers are from 10 to 80. ^{đây, hướng}

The top of the drawing has the end rail with it's numbers.....all you have to do is remember these numbers when the cue ball origin is from a long rail.

Drawing 40 has the cue ball origin from 5.....if you wish to hit the rail edge on the end rail at 6, just ^{lần tăng lên} multiply the cue ball origin by the end rail hit point number, or 6 times 5 = 30.....30 becomes the first rail aim point.....if you wish to hit 8 on the end rail, multiply 8 times 5 = 40, now 40 is the new first rail aim point.

^{thực như, như thế} Drawing 41 has various cue ball origins, ranging from 1.5 to 5.0.....all examples have the ^{mong muốn} desired end rail hit point at 10....note that these cue ball origins are all from a long rail.

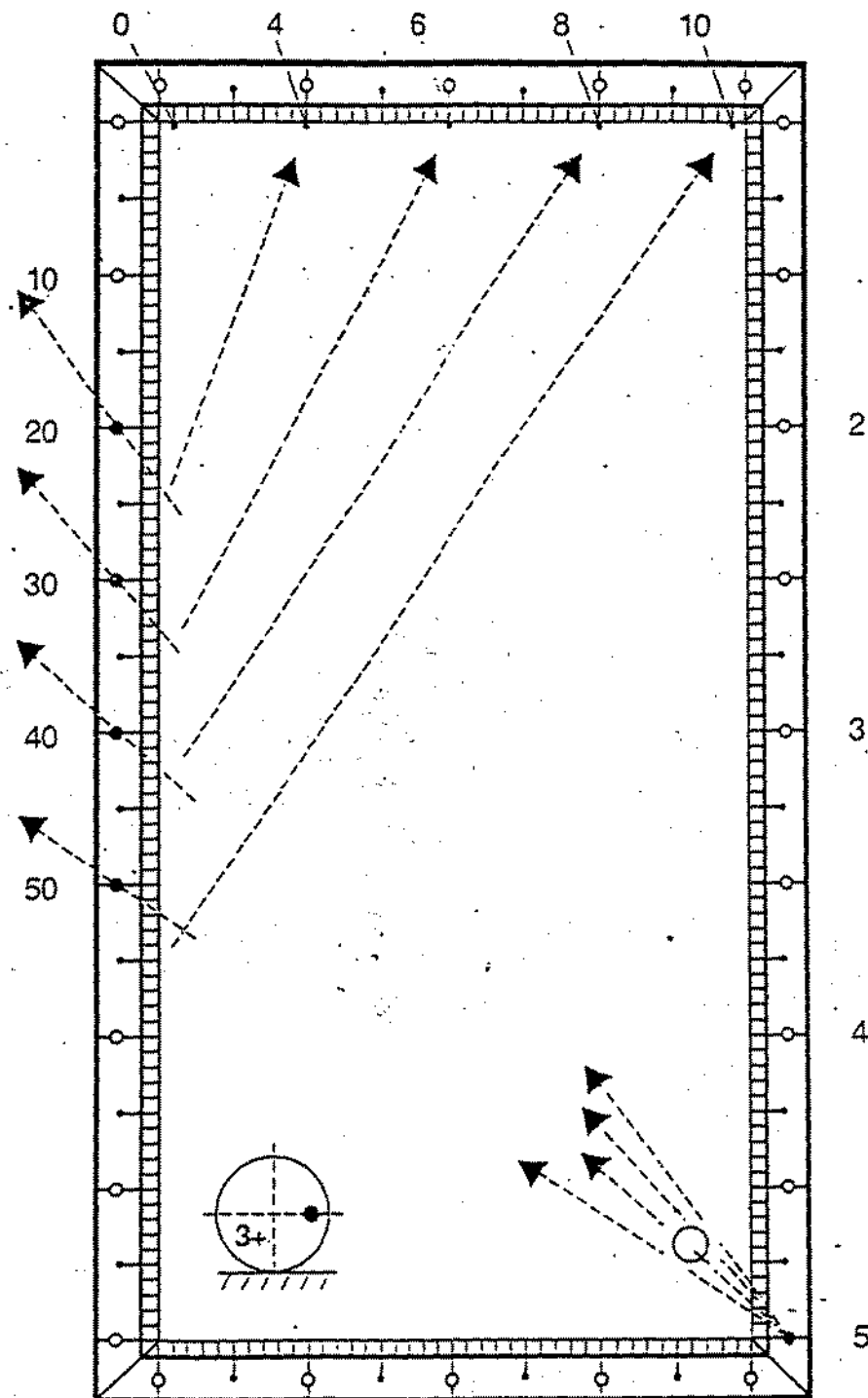
To find the first rail aim point, multiply the cue ball origin number by the end rail hit point number.....for example a cue ball origin of 5.0, times the end rail number of 10 = 50, so aim at 50 on the first rail.....a cue ball origin of 4.0, times the end rail number of 10 = 40, so aim at 40 on the first rail.....the cue ball number of 2.0 times the end rail number of 10 = 20, so aim at 20 on the first rail.

^{đích đạo} Maximum equator english is used.....level cue.....speed is between 3 and 4 rail speed.....follow through stroke.

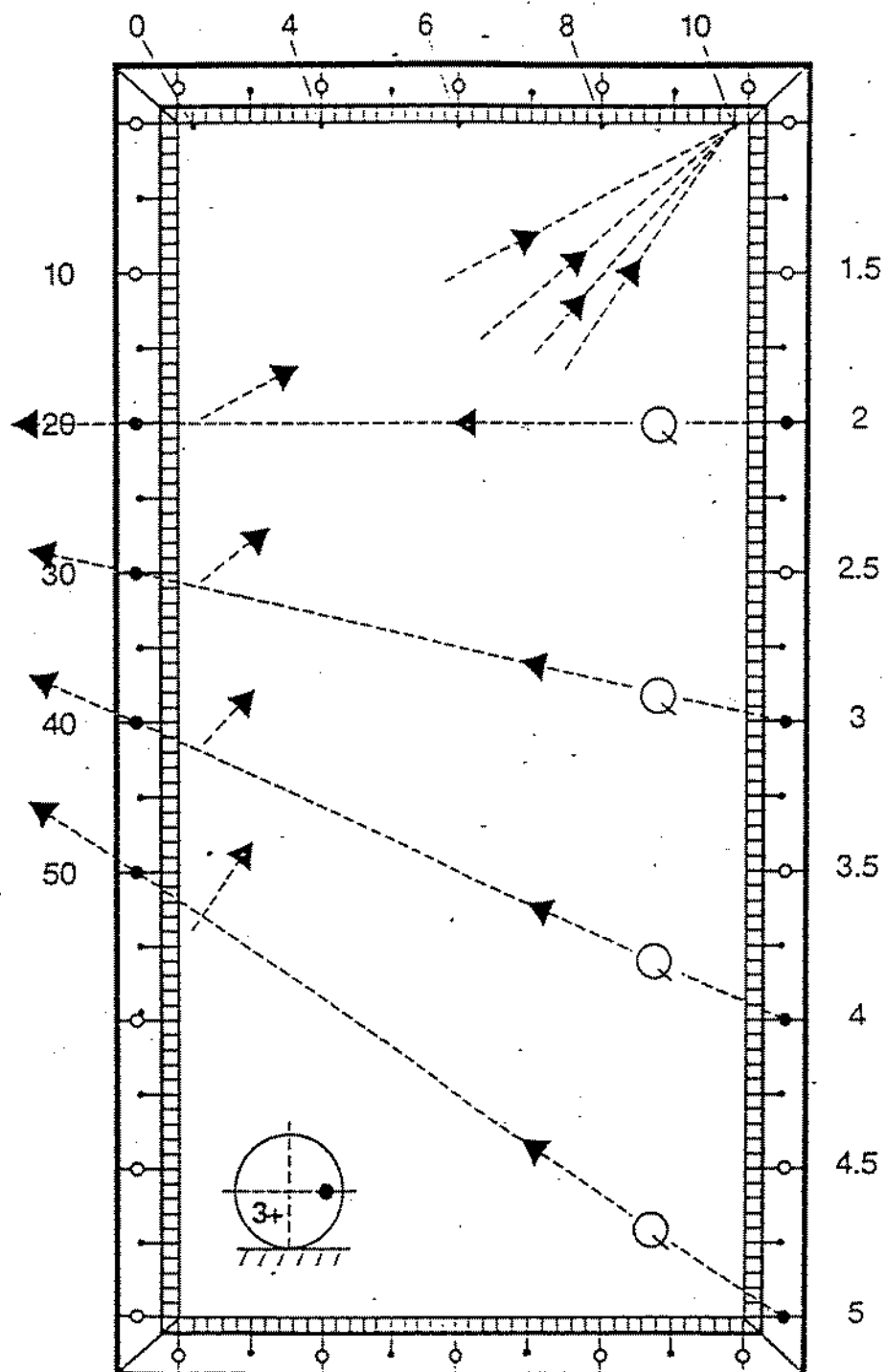
Drawing 42 notes a path that requires a change in cue ball english.

10yr no condensation

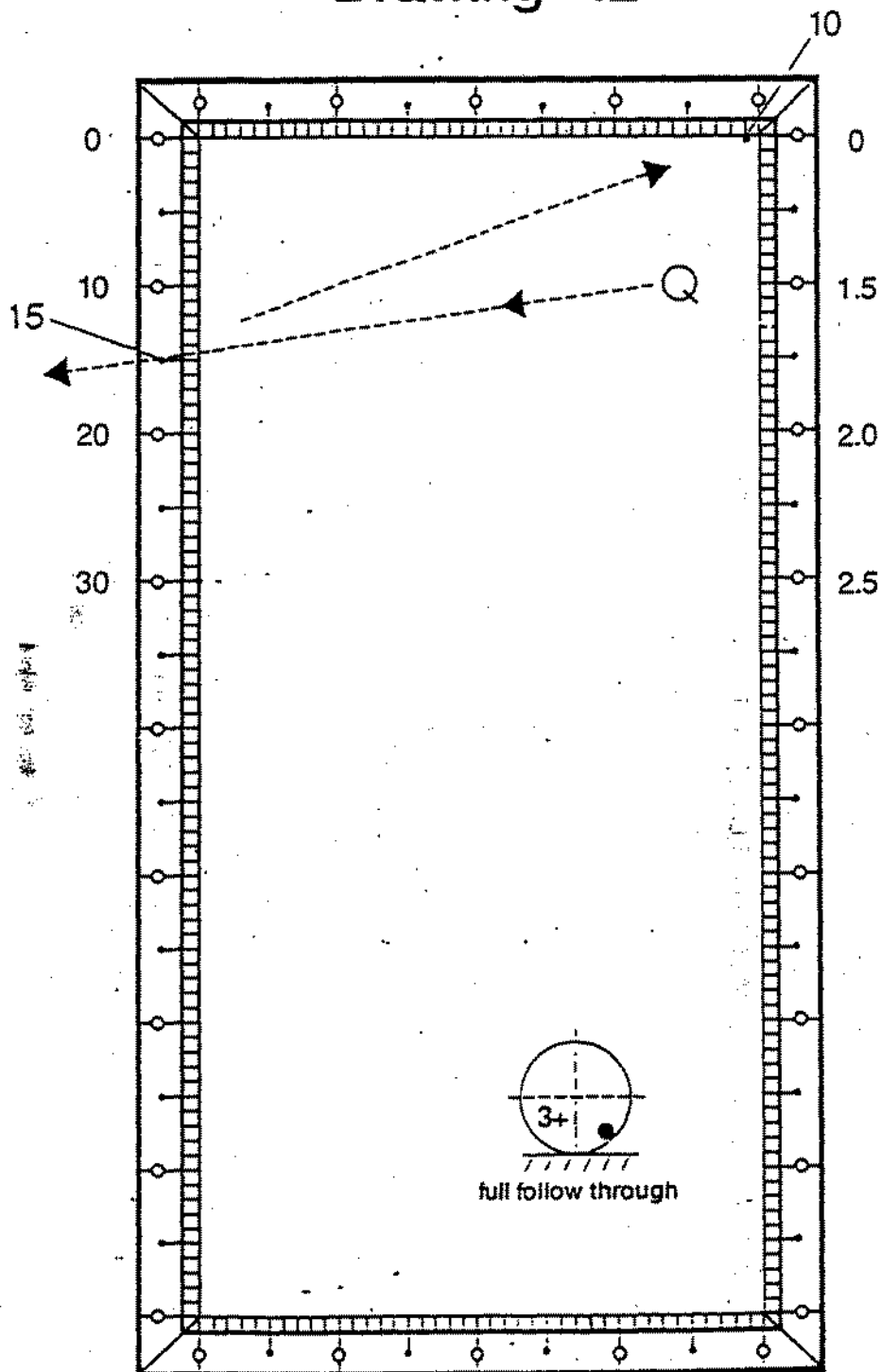
Drawing 40



Drawing 41



Drawing 42



Toyko's Change

When the cue ball origin is from the end rail, the numbers on the opposite end rail change.....just slightly.

không tăng lên

Drawing 43 has new cue ball origin numbers.....these numbers turn the corner from 5 and continue on to 6, 7 & 8.

All examples have the 2nd rail aim point at 10.....but this number 10 changes with each cue ball origin between 6 and 8.

A cue ball origin of 6 has the 2nd rail hit point number of 10 changing to 9.0.....the cue ball origin of 7 has this 10 change to 8.5.....the cue ball origin of 8 has this 10 change to 8.0.

Actually, it's fairly simple 9.0, 8.5 & 8.0.....easy no ?

To find the first rail aim point, *lưu ý tăng lên* multiply the cue ball origin of 6, times the 2nd rail hit point of 9 = 54, so aim a 54 on the first rail.....a cue ball origin of 7, is multiplied by the 2nd rail hit point of 8.5 = 59.5, so aim at 59.5 on the first rail.....a cue ball origin of 8, multiplied by the 2nd rail hit point of 8.0 = 64....aim at 64.

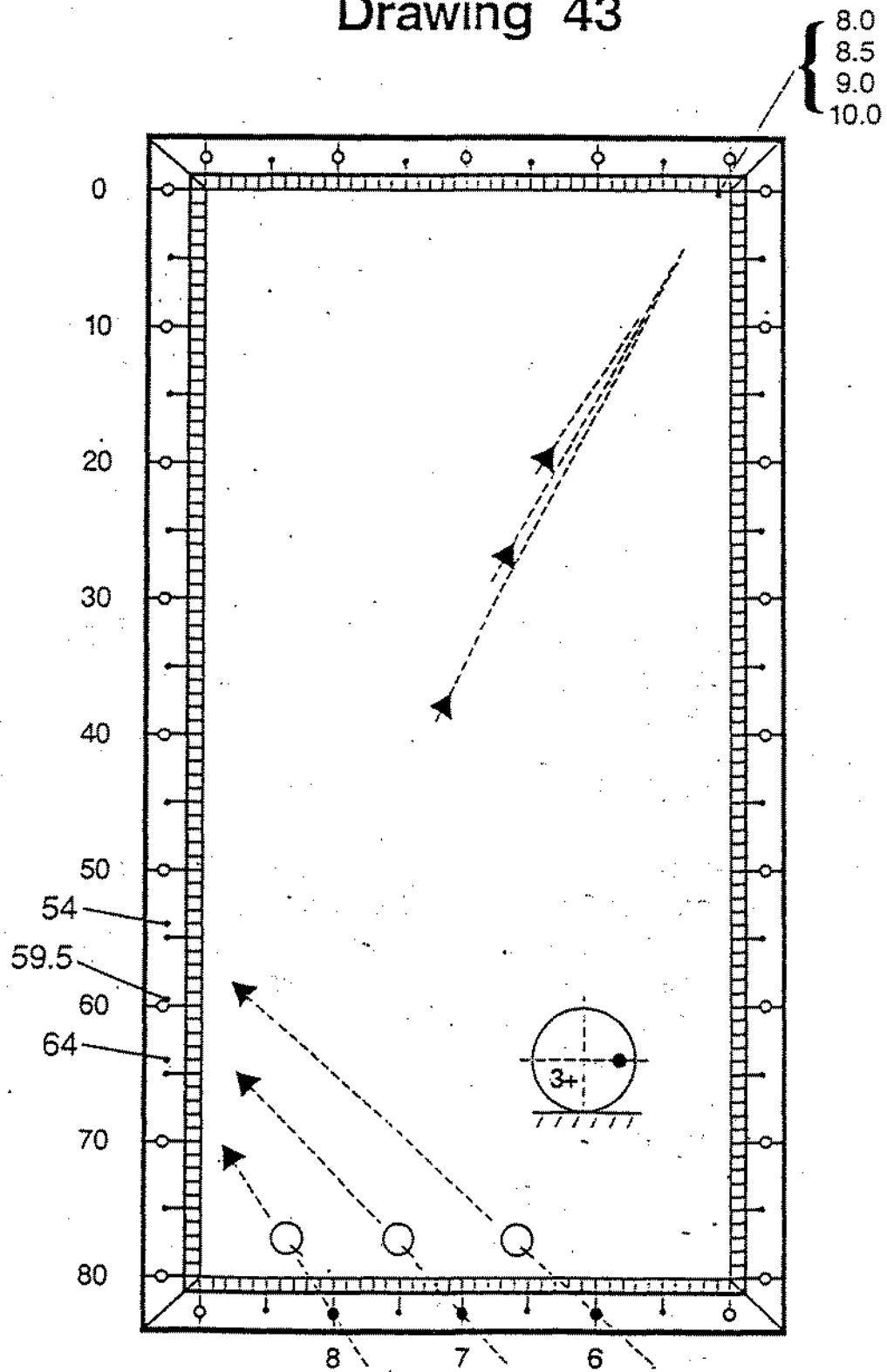
Drawing 44 is a good example of having something to shoot at when all else looks bleak.

From the *trước, A* previous pages, it is known that when the cue ball origin is 8 and the *điểm* desired end rail hit point is 8, or point B, then by multiplying these two numbers you will find the first rail aim point of 64....out of the corner at the 2nd rail hit point, a whipping action, from point A, will have the cue ball path near the billiard. *giật, rút*

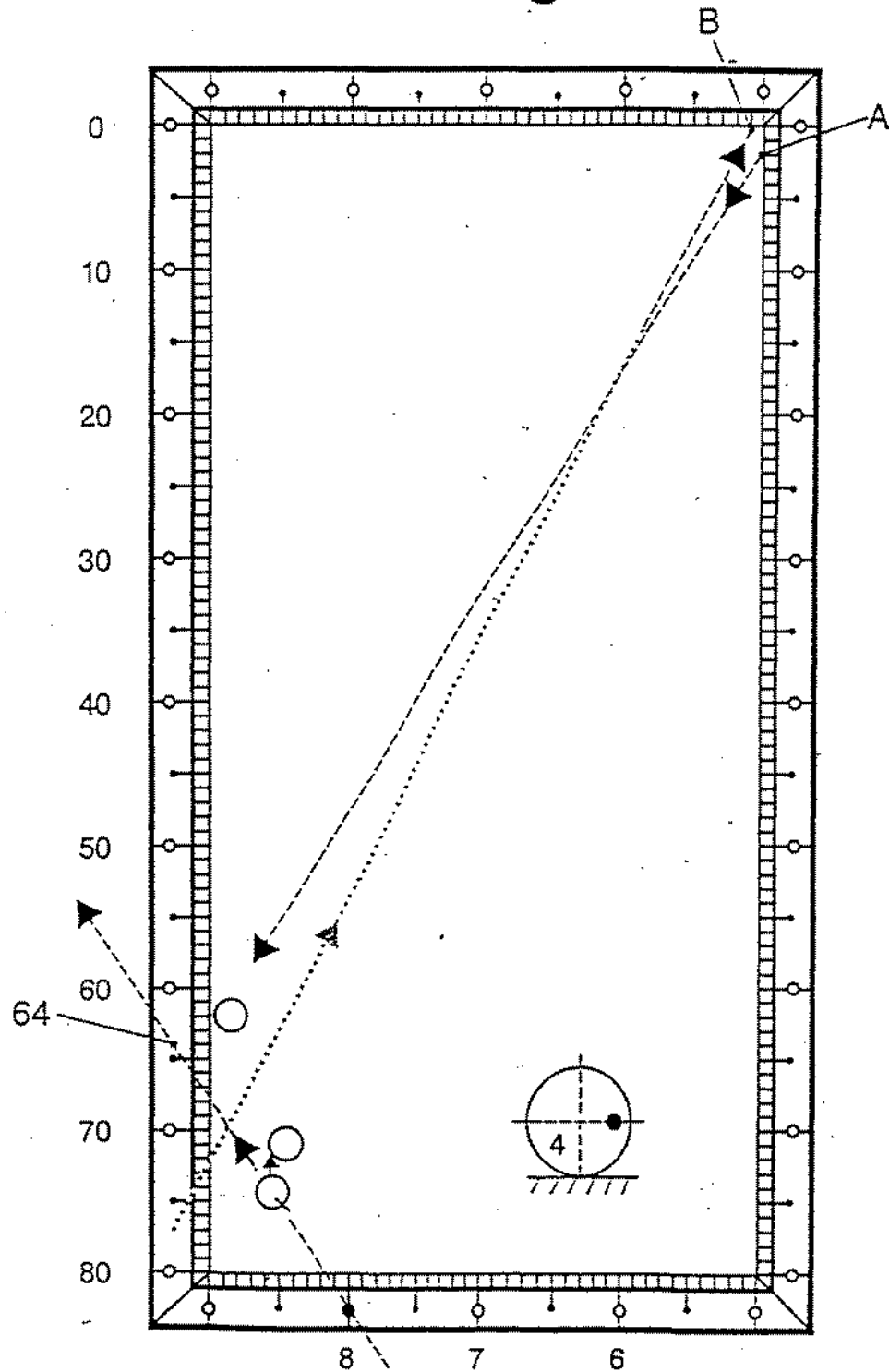
You should hear cues tapping when you make this shot.

vỗ nhẹ, gõ nhẹ

Drawing 43



Drawing 44



If you hit the cue ball harder or easier than you intended, you will find the result to be all wrong

East End

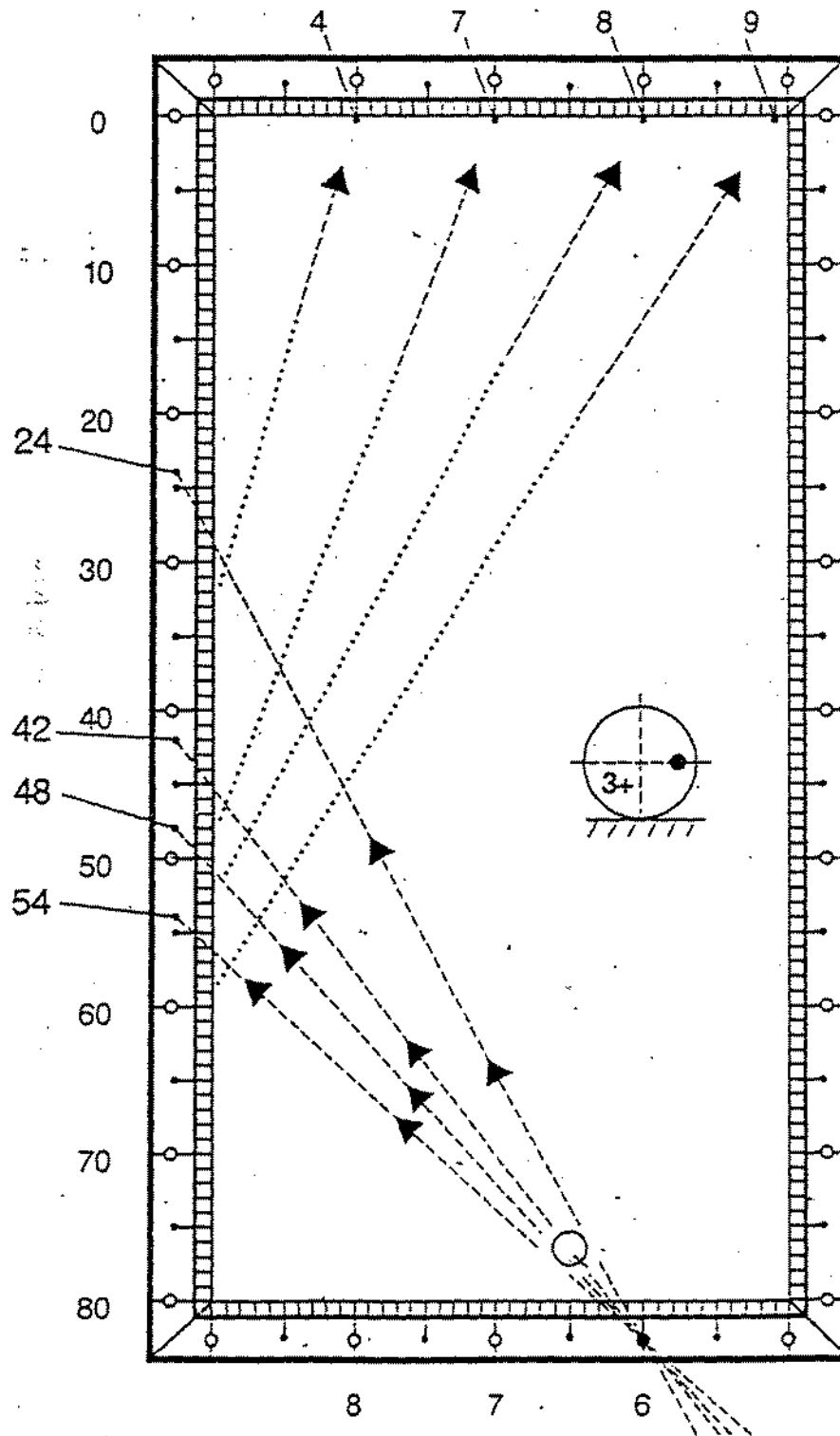
Drawing 45 will show what occurs^{~ xảy ra} when the cue ball origin is from 6, which is a far end rail origin.

Notice^{nhận thấy} that the 2nd rail hit points change.....only slightly.....these numbers are 4, 7, 8, & 9.

This drawing shows four separate paths.....the same formula^{công thức} is applied^{áp dụng}.....cue ball origin of 6, times the 2nd rail hit point number of 4 = 24.....aim at 24 on the first rail.

The cue ball origin of 6, times the 2nd rail hit point of 7 = 42.....aim at 42.....another path has the cue ball origin at 6, times the 2nd rail hit point of 8 = 48.....aim at 48.....the last path has the cue ball origin at 6, and this times the 2nd rail hit point of 9 = 54.....aim at 54 on the first rail.

Drawing 45



Far East End

ở đầu cầu, từ đầu cầu

This is a continuation on the study of cue ball origins from an end rail.

Drawing 46 has the cue ball origin from 7.....one number changed on the 2nd rail.....these 2nd rail numbers are now 4, 7, 8 & 8.5.

This drawing ^{giải quyết} solves ^{chia cắt} four separate paths.....again, using the same formula, the cue ball origin of 7, multiplied by the desired 2nd rail hit point of 4 = 28....aim at 28 on the first rail. ^{ý cầu}

The cue ball origin of 7, times the 2nd rail hit point of 7 = 49.....aim at 49 on the first rail.....cue ball origin of 7, times 8 = 56....aim at 56 on the first rail.....cue ball origin of 7 times 8.5 = 59.5....aim at 59.5 on the first rail to hit 8.5 on the 2nd rail.

Drawing 47 ^{kiểm tra} inspects the cue ball origin of 8.....here is the last set of numbers for the 2nd rail hit points.....they change a bit.....and they are 5, 7, 7.5 and 8.0.

These four paths are solved thusly.....the cue ball origin of 8, times the desired 2nd rail hit point of 5 = 40....aim at 40 on the first rail to arrive at 5 on the 2nd rail.

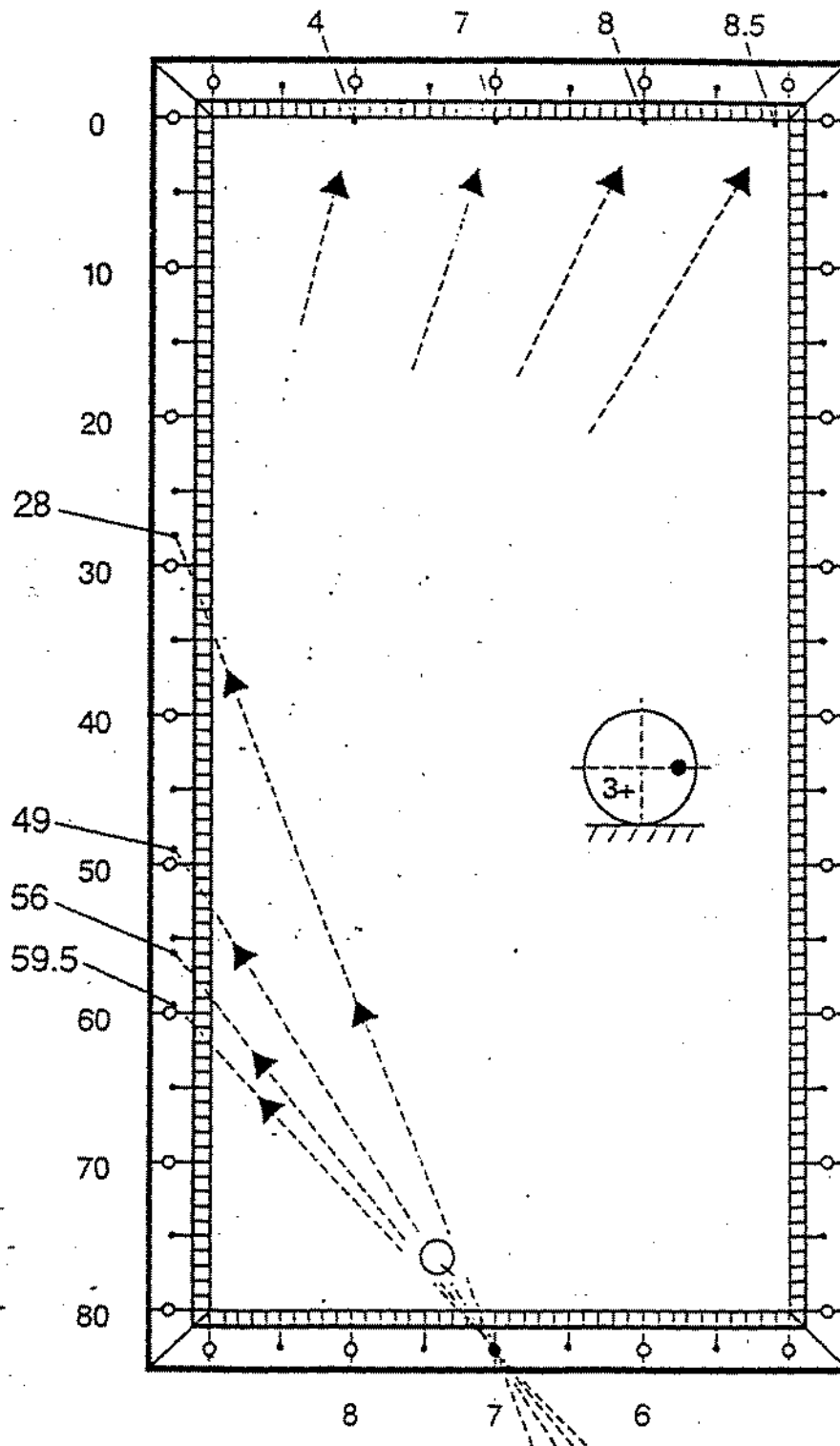
The cue ball origin of 8, times the desired 2nd rail hit point of 7 = 56..aim at 56 on the first rail.

The cue ball origin of 8, multiplied by the desired 2nd rail hit point of 7.5 = 60.....aim at 60 on the first rail.....the cue ball origin of 8, times the desired 2nd rail hit point of 8 = 64.....aim at 64 on the first rail.

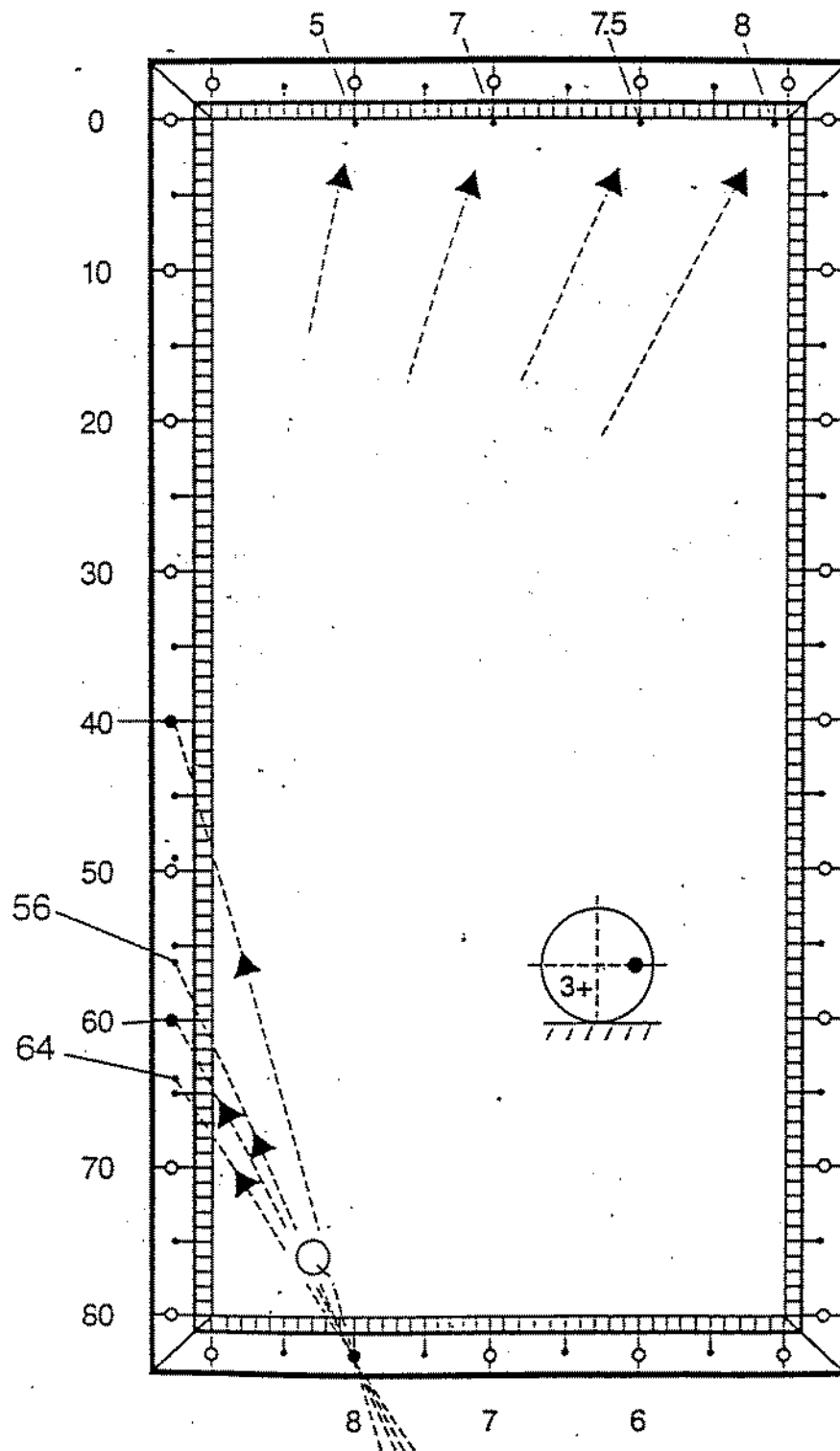
The 2nd rail hit point numbers are easy to remember.....they only change when the cue ball origin is from an end rail.....and the change is not complicated.

phức tạp, rắc rối

Drawing 46



Drawing 47



*A cue ball struck at dead center, or a
little below, runs more accurately than
when struck above this point.*

*This is why you should shun the
above center stroke.....thus avoiding
an unnatural action off the rail*

Grab For Straws

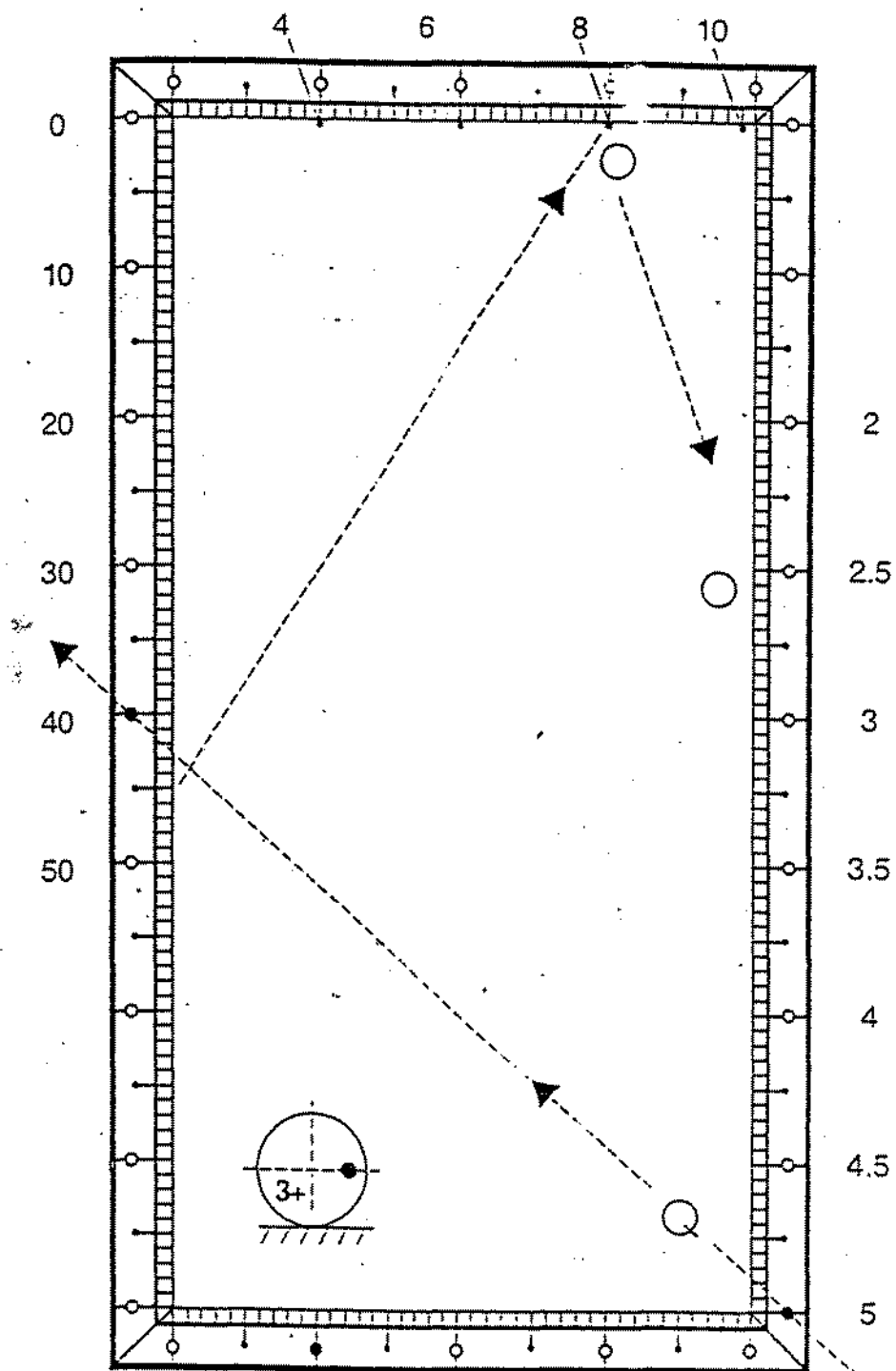
The rail first bank, as shown in drawing 48, has a chance to make this billiard.....just use the methods shown in the previous dozen pages.

^{xác định, định rõ} In determining the ^{cần, cần thiết} necessary path, it appears that when a cue ball origin is 5, and aimed at 40 on the first rail, the cue ball should be hitting the correct side of the first object ball.....hopefully, a ^{mỏng} thin object ball hit will ^{xảy ra} occur.

If you think this is grasping for straws.....what else do you have to shoot at ?.

^{nắm chắc, hiểu được}

Drawing 48



Blue Moon Shot

Occasionally a very difficult shot will appear that has very little chance of making a billiard.....like once in a blue moon.

These drawings indicate ^{chỉ ra} one ^{đến gần} approach towards this billiard, besides being viable, it has great flair.

Two drawings are shown.....each with different cue ball origins and different first object ball locations.....yet the same "formula" ^{công thức} is used to solve both situations....note that all numbers indicate "diamonds".

The aim spots are at the "edge" of the cushion.....hit the ball softly to maintain the proper angle off the first cushion. ^{điểm}

^{giữ, duy trì} The formula is shown on each drawing.

Drawing 49 has the numerator as a ^{việc nhân, tính nhân} multiplication of the table length (8 diamonds) times the first object ball location from the long rail (hit rail) corner (2 diamonds).....the denominator is the ^{tính cộng} addition of the cue ball location and first object ball location from the long rail (hit rail).

^{thiết lập, chứng minh} Test the table and establish the "allowance".....the allowance on my table is "plus .3" diamondstherefore in drawing 49, my first rail hit point is 5.63 ($5.33 + .3$).

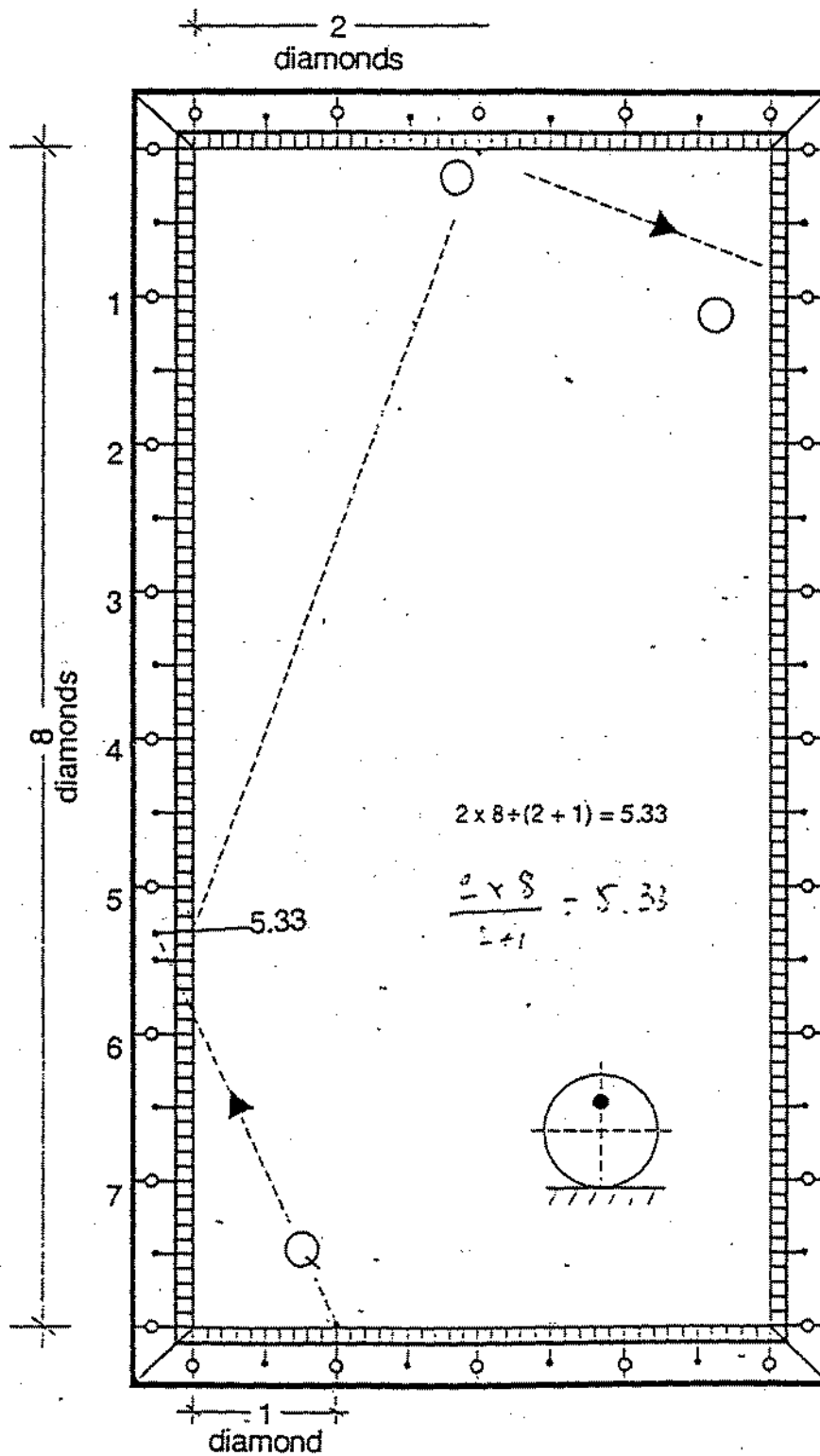
Drawing 50 has the first rail hit spot at 2.66 plus .3, or 2.96.....if the table has a ^{cát nhiều} great deal of ^{trượt} slide, try a ^{thước kẻ} graduated allowance.....instead of .3, try .1 from a cue ball origin point.....then graduate to .2 at the next cue ball origin point, and so on.

This shot is rarely attempted, since the ^{may, bỏ, lờ} margin of error would be embarrassing.....not to worry.....now the reader can come close.

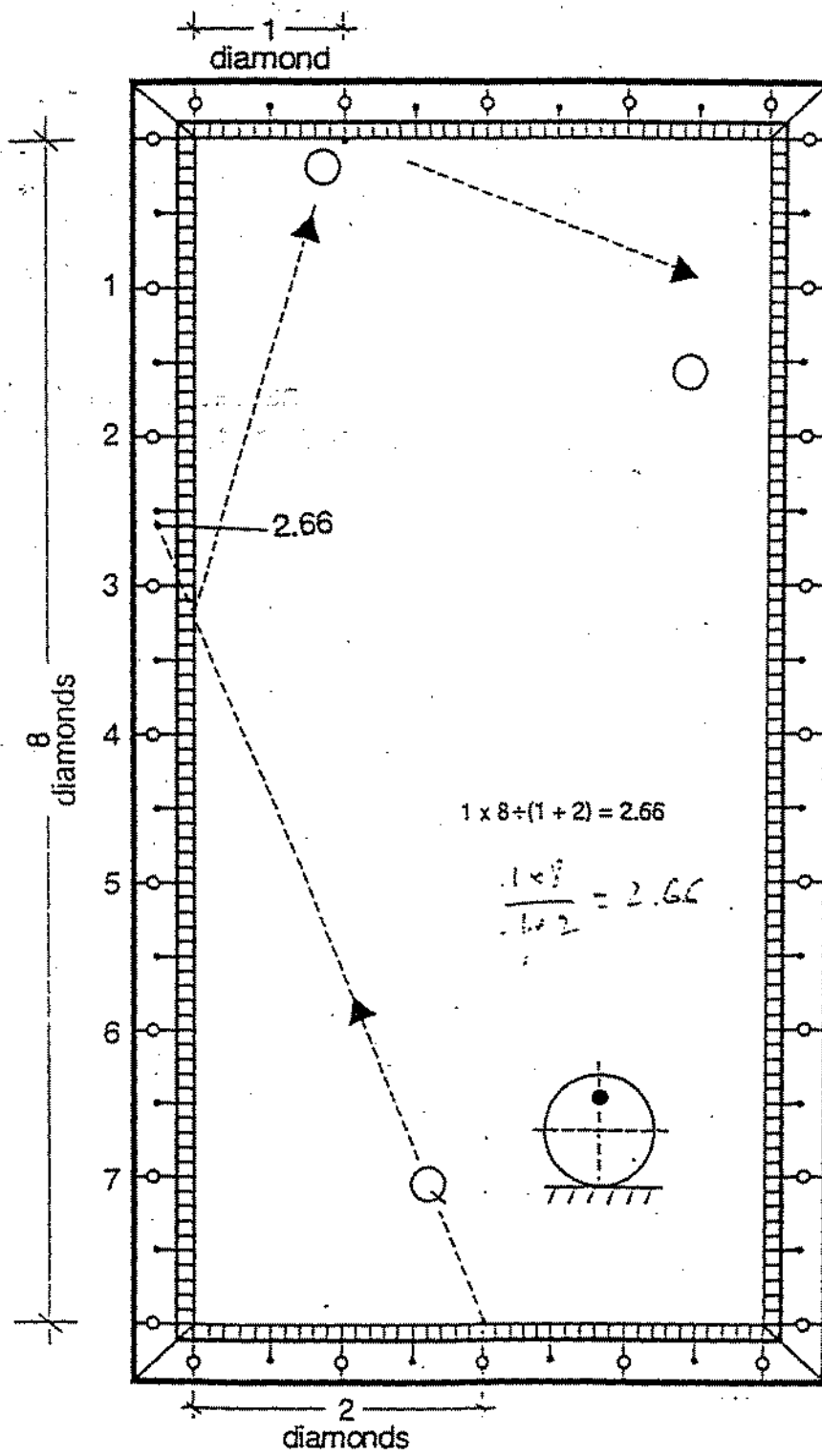
^{lưu ý, nhớ, gậy đánh}

Blue 1-10m sheet

Drawing 49



Drawing 50



Small Moon

When the cue ball is away from the cue ball origin rail, it is more difficult to determine the cue ball origin.

xác định

Drawings 51 and 52 have another way of finding this cue ball origin number.....just move the imaginary end rail to someplace close to the cue ball location.....sometimes the cue ball rests on this imaginary rail, so calculations are easy.....otherwise, this rail edge must be estimated.

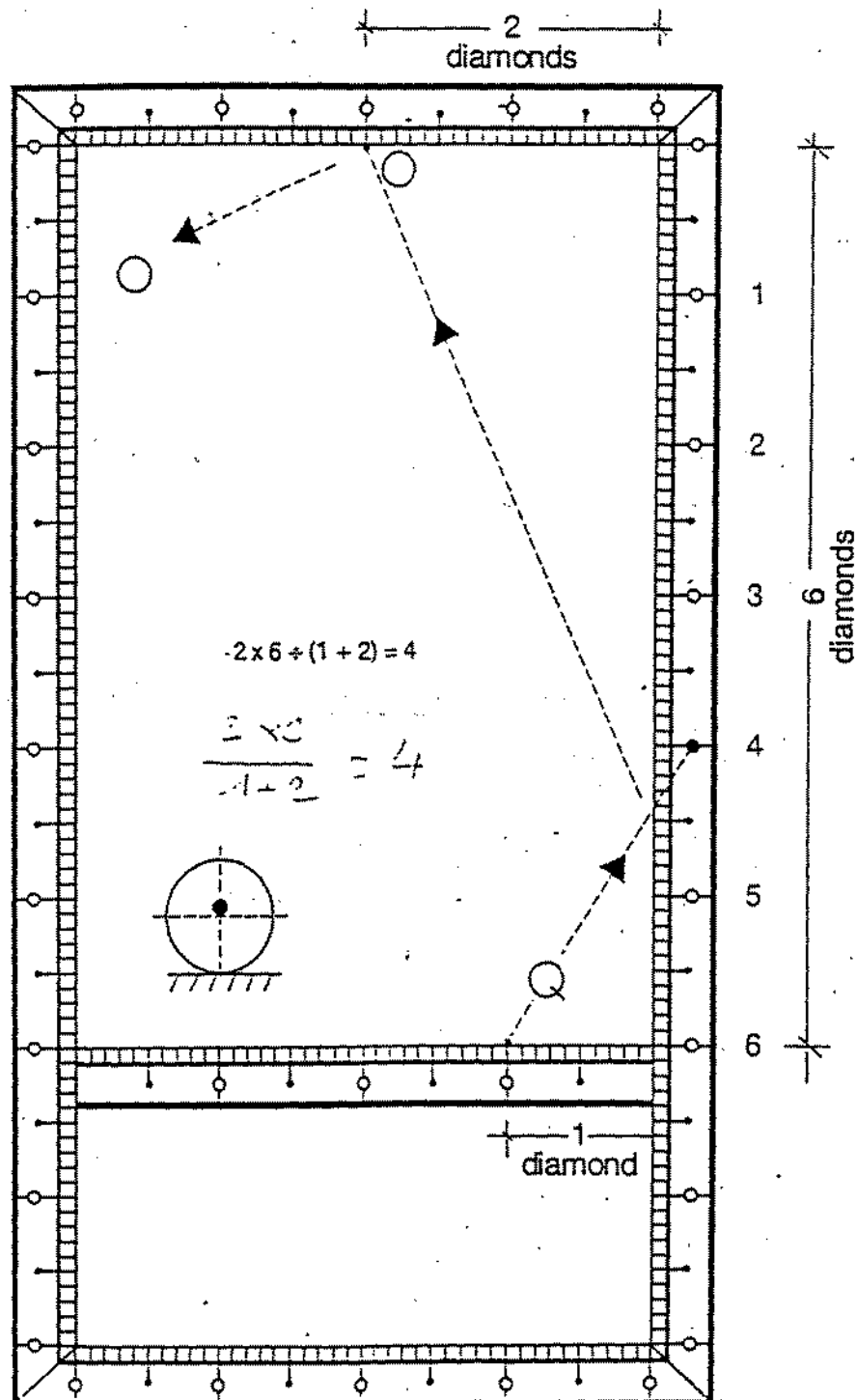
ước tính

ước tính, ước tính

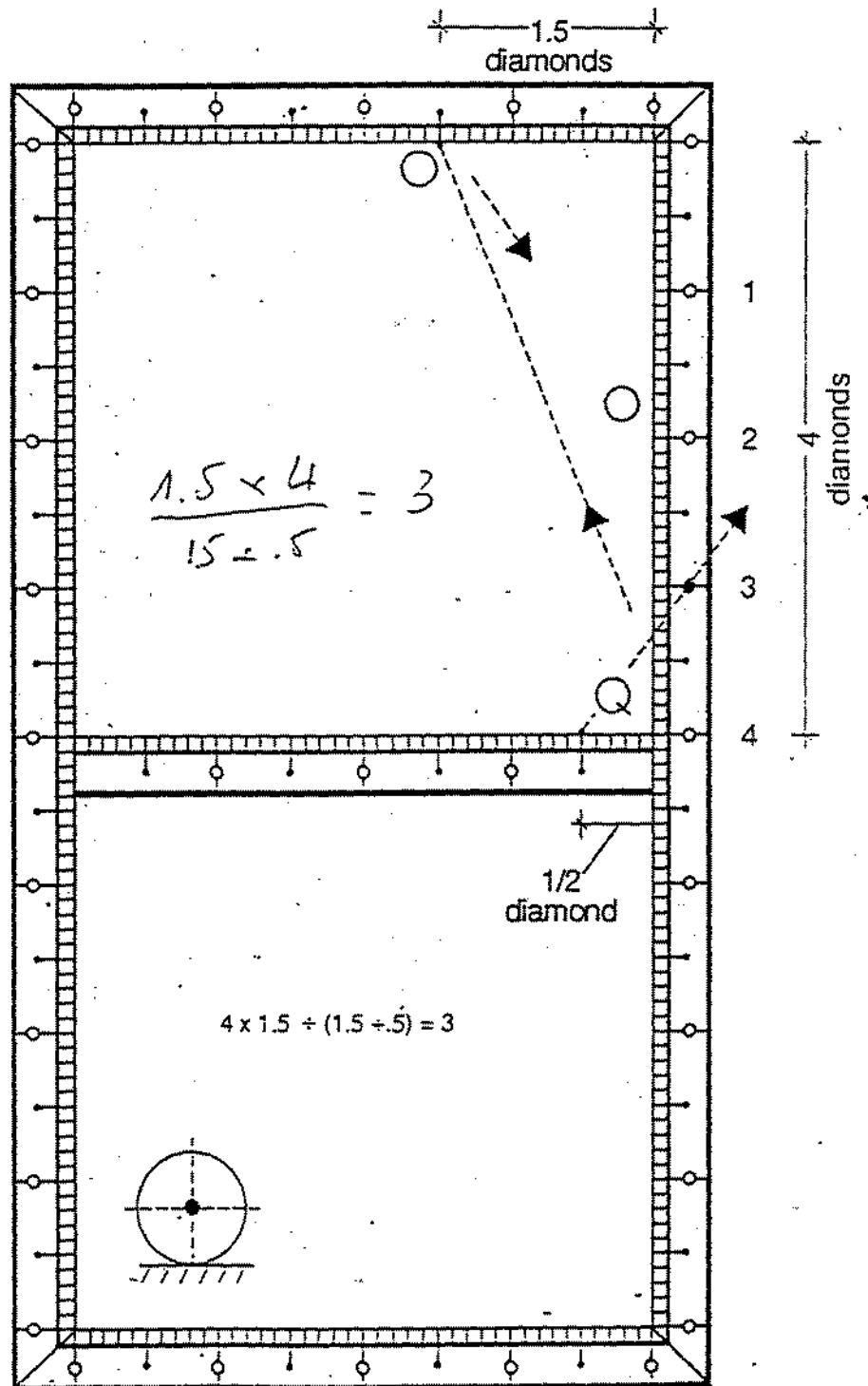
Note the numerator is calculated differently.....instead of using eight diamonds as a multiplier, use the diamond distance from the imaginary rail to the 2nd rail hit point.

Small Moon

Drawing 51



Drawing 52



Blue Moon Reverse Back Out

A cousin of the "Blue Moon" is the reverse english version of that system.....this is also an extension of the "Reverse Back Out" system shown in the "Billiard Atlas II", chapter VIII.

The "formula" used in the "Blue Moon" is also employed here.

Drawing 53 is ^{giống nhau, tương tự} similar to "Blue Moon's" drawing 49, except the opposite side of the first object ball is hit, and the cue ball english is different.

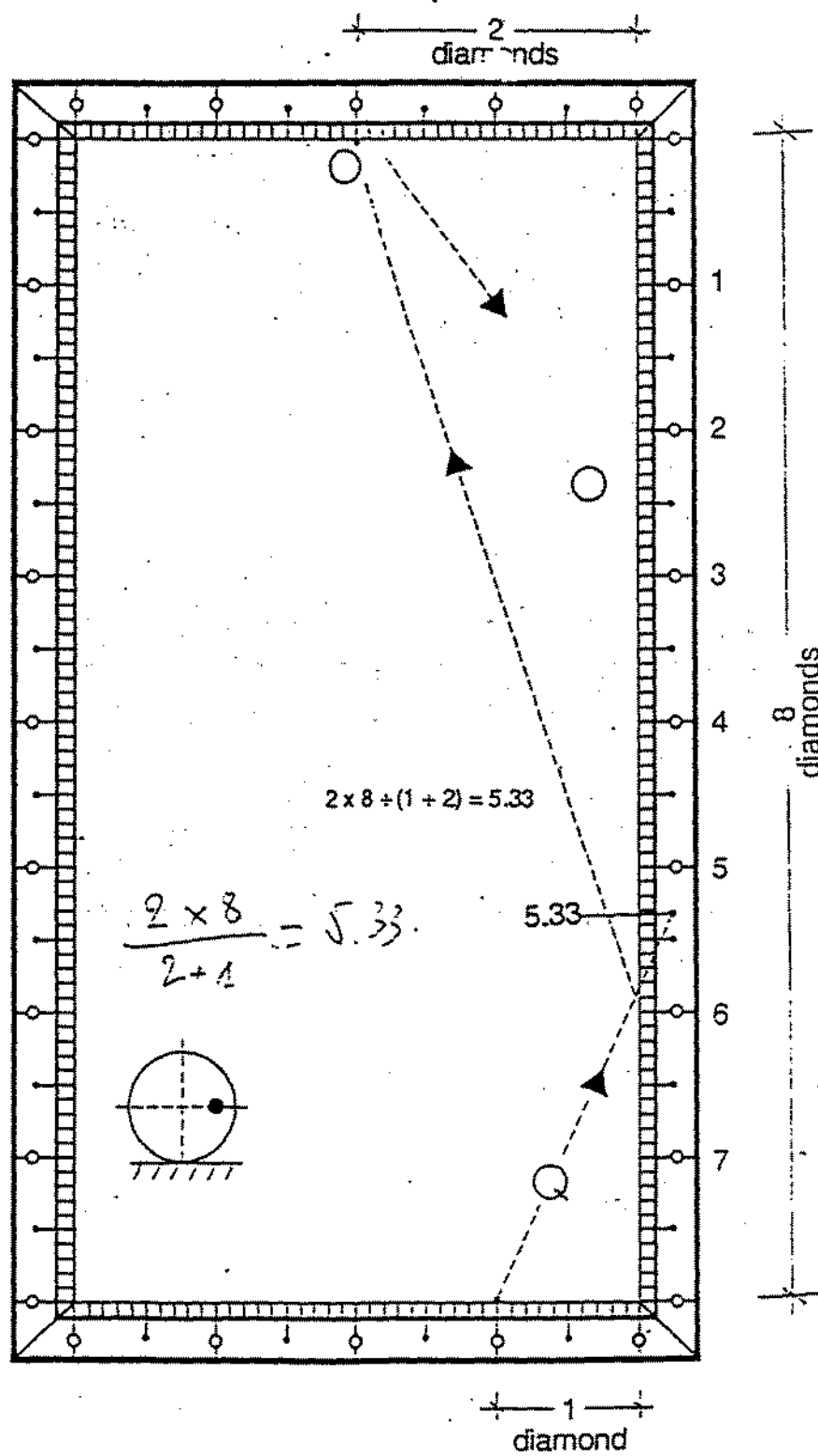
The allowances are ^{e-tung kê} slightly different since "rolling" english is not used.....side english will have the cue ball ^{trượt} slide a bit.....also more speed will alter the angle....therefore, test the table for the new allowance. ^{thay đổi}

^{nhảy, lompat, lompat} Desperate ^{phương pháp, bi đát} measures are sometimes employed for a difficult billiard.

On a long angle such as this....." *the harder you hit the cue ball, the sharper the angle is off the rail, and the same applies for a ball struck below center* ". ^{áp dụng} ^{đánh, tập rằn}

^{điều} Because extra speed is required, the aim point is moved to 5.5, on my table.

Drawing 53



Chapter Five

How To

This chapter contains a collection of certain billiard shots that show up frequently.....usually, the *Billiard Atlas* books cover information that belongs to a family of shots.....here, the family is marginal.

A kiss occurs often in a certain 5 rail shot.....now you'll find out how to miss this kiss.

The "Wow" shot is one you may never have tried, but when you give this a go, you will be glad you did.....we are talking eye-popping.

The "Spot On The Wall" shot needs more exposure.....these examples will expand the use of this method.....this approach will open the door to more billiards.

"Paralleling" & "Mirror Mirror" are two nifty bits to add to your "how to" list.

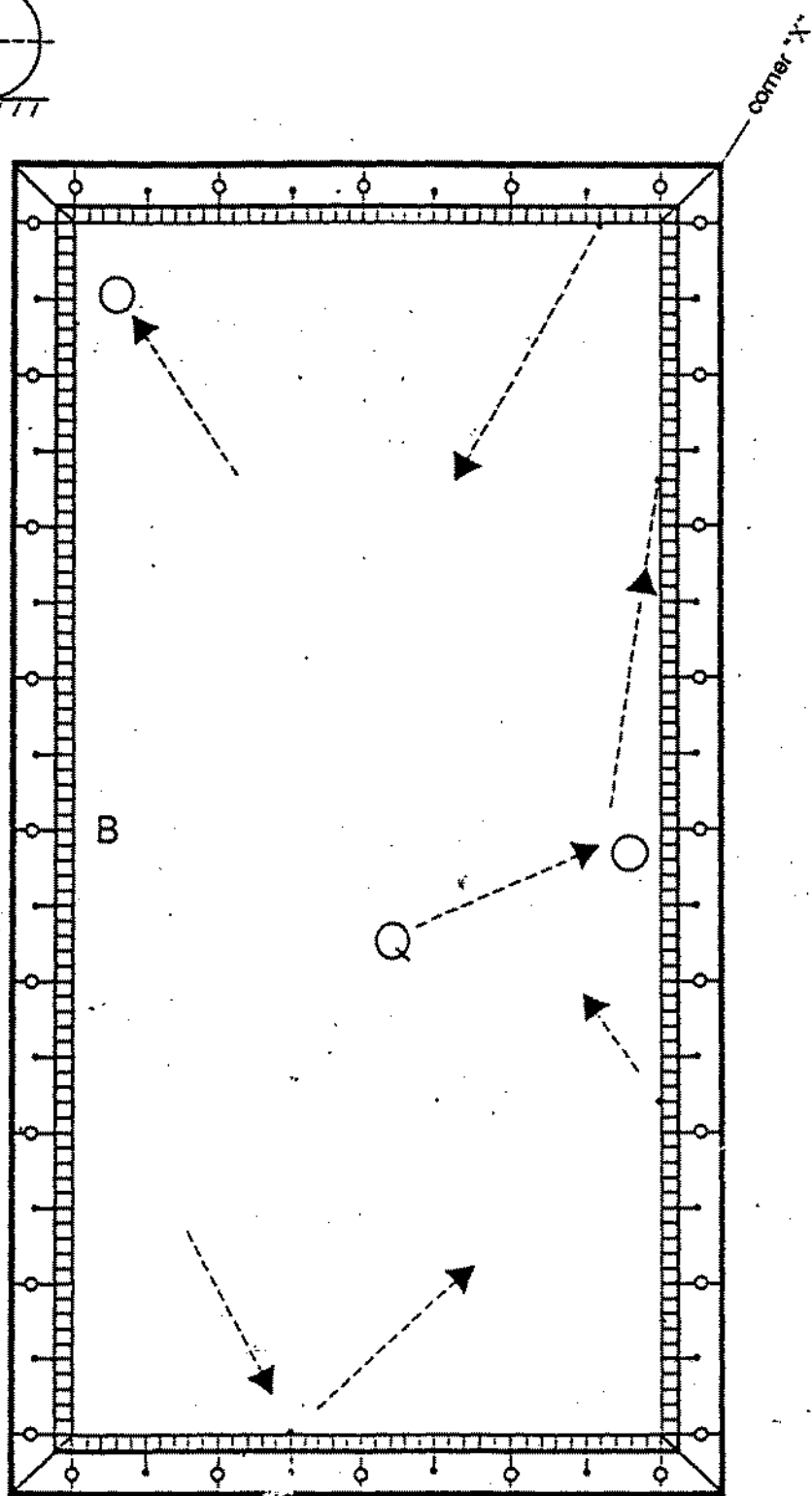
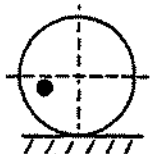
The "Basic Diamond" system is reviewed.....the introduction of heated tables, compressed cushions and slippery balls require a hint or two, on how to best handle this.

Technical data regarding cue ball movement is included here....and is of major importance in getting good object ball hits.

Miss-A-Kiss-A-Day

This is the easiest way to map out this ^{đặc thù, riêng biệt} particular kiss..... the one that shows up in every game.....drawing 54 has the player trying for a five rail billiard.....the kiss is avoided as follows;

Make sure that when your cue ball gets to corner X, the first object ball will be near point B.



Drawing 54

Wow Shot

^{đi lựa chọn}
Drawing 55 has the player facing difficult alternatives.....the rail first shot will not be attempted because it looks impossible to accomplish.

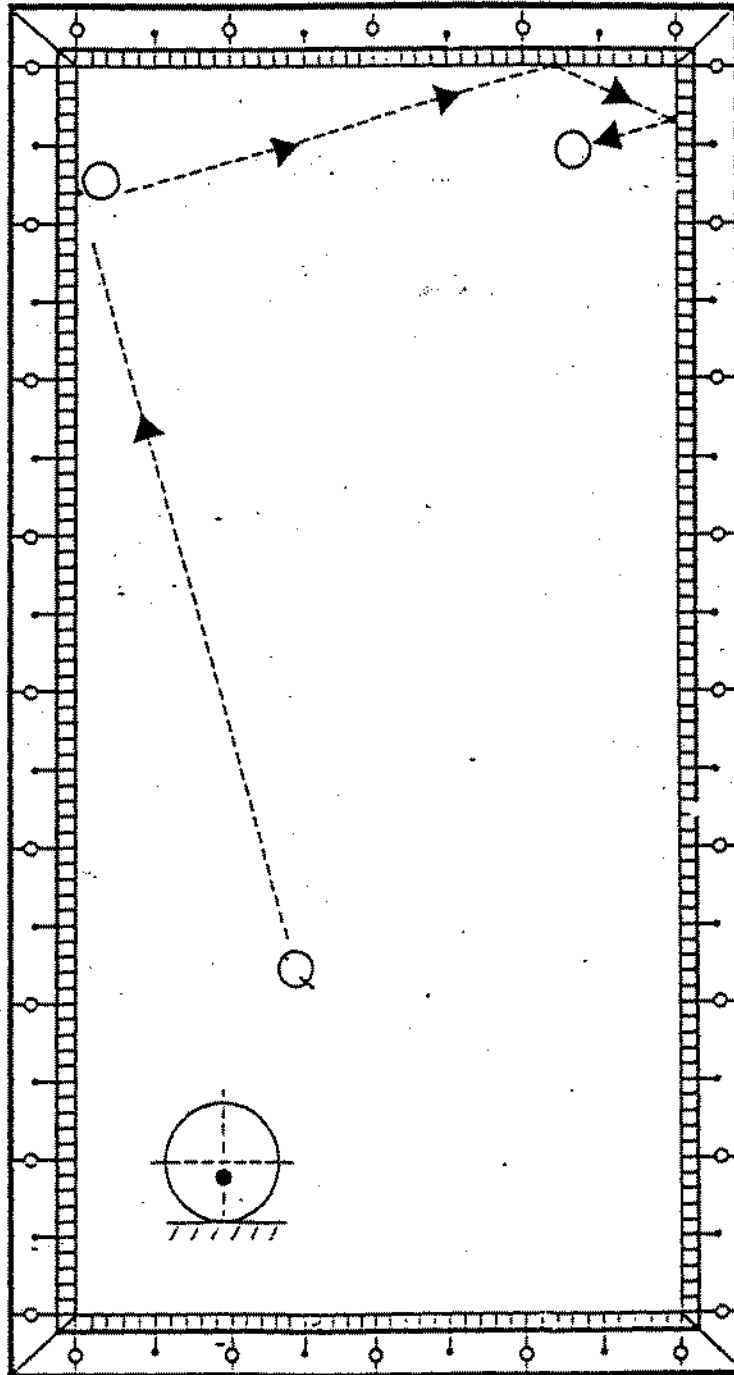
^{nhảy lên, trườn}

Elevate the cue butt.....cue ball english is center and low.....use a full hand grip.....a quick stroke (jab or pop stroke) is used.....grip pressure may vary, ^{thay đổi} and is a bit forward.....use a full hit on first object ball.....hit the rail and ball at the same time.

You'll hear a definite wow, when you make this shot.

^{rõ ràng, chắc chắn}

Drawing 55



Paralleling

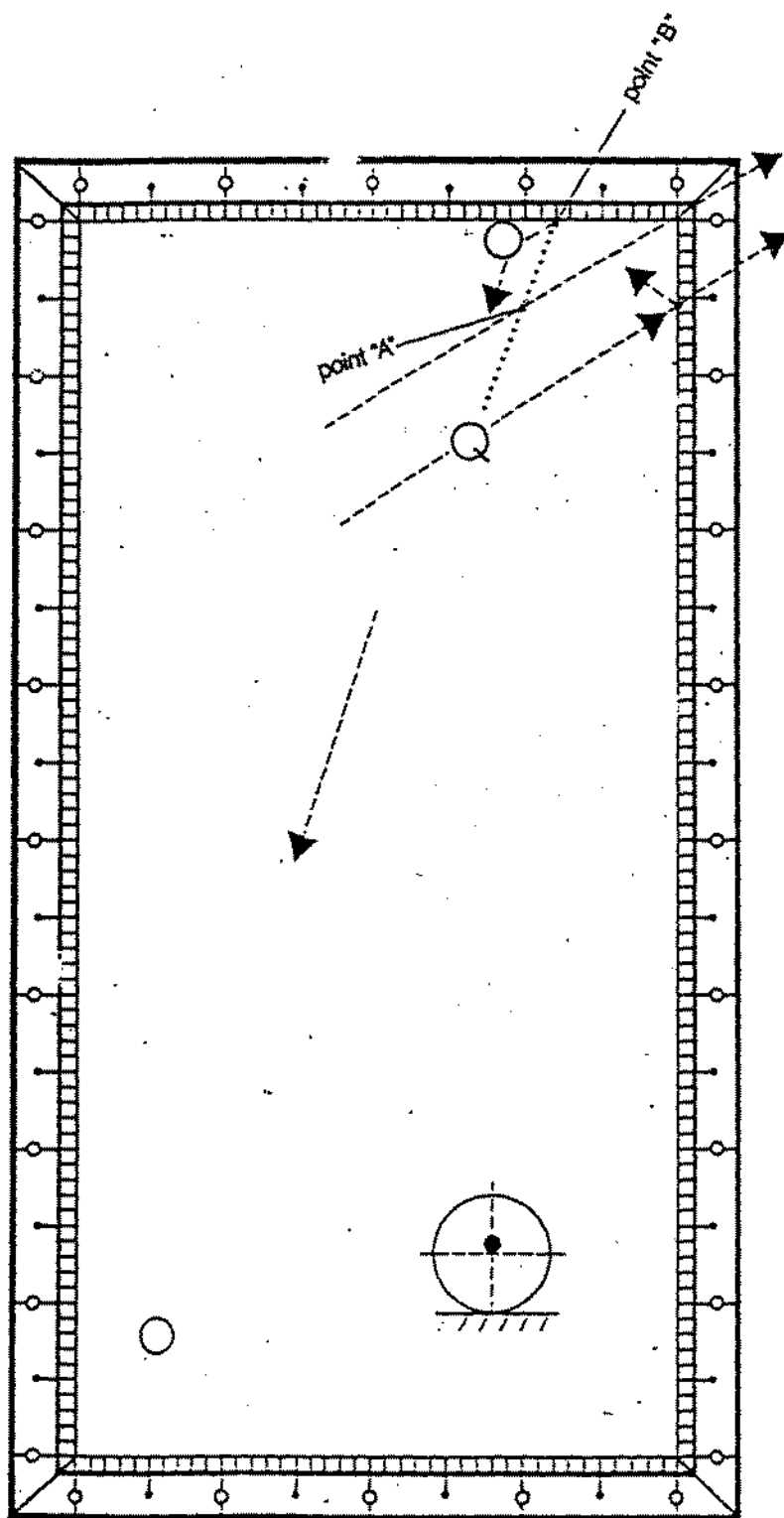
Paralleling is one of the more popular ^{phương pháp} methods ^{vạch ra, sắp xếp} of mapping out a shot.....and occasionally comes in handy.

Drawing 56 shows how it's done.

Find the halfway point (point A) between the cue ball and the 2nd rail hit point.....from point A, draw a line to the corner.....move your cue stick parallel to this line until it's over your cue ball.....this is your new aim point.

High center cue ball english.....short bridge.....follow through stroke.

Check out page 52 for another example.



Drawing 56

Mirror Mirror

the fact that this simple technique is not used by most players, is mind boggling.....but an excellent example of how small bits of information help a player.

Drawing 57 has the player attempting a rail first shot, with a thin hit off the first object ball, and into corner X.

To get a rail first thin hit on the right side of the first object ball, aim for a thin hit on the left side of the first object ball.

A "mirror" effect is employed.

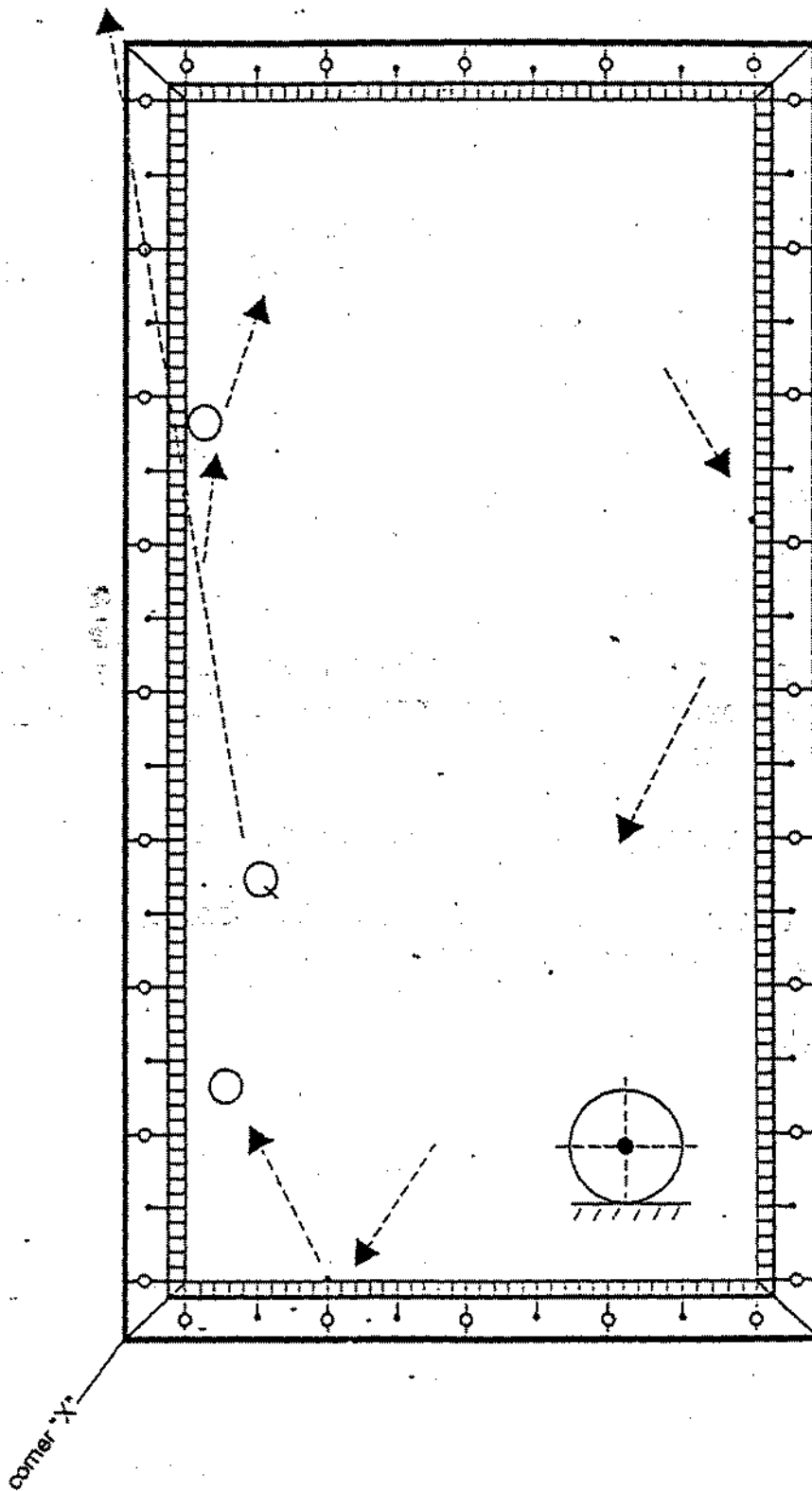
This method opens the door to more accurate hits on the object ball, and even 1/4 object ball hits can be accomplished.....just aim for 1/4 hits on the other side of the object ball.

English can vary, depending on your desired cue ball path.

"Only when the cue ball is hit softly and without english, is the angle into the rail equal to the angle of reflection".

Running cue ball english, will change the hit on the object ball.....so will equipment with lots of slide.

Drawing 57



Spot On The Wall

When the player memorizes the "*basic*" running lines, he must then translate this knowledge to solve the problem at hand.

It is important to picture the ^{tránh, tránh}entire path of the cue ball.....the easiest method of calculating a running line is to use the *spot on the wall* method.....this method has its ^{nhược điểm}limitations since it is usually employed for *three cushion shots* only.....and the distance to the spot, has to be somewhat correct.....^{đo khoảng cách}the distance beyond the table to the spot, is the distance between the cue ball origin point, and the first rail hit point.

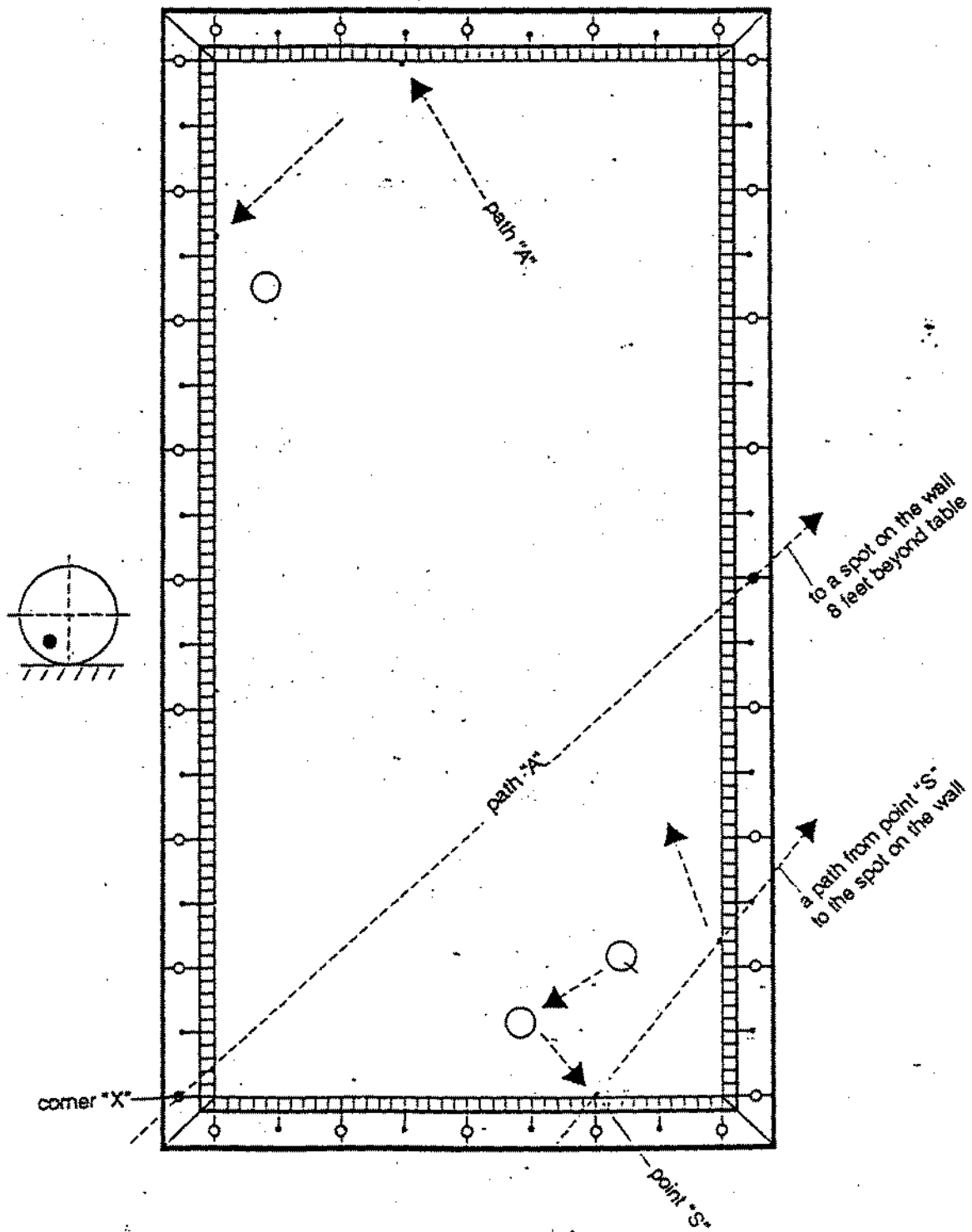
The drawings on the following pages ^{tiết lộ}reveal two examples of locating the cue ball paths.....and ^{đơn giản}extremely simple to learn.....after the billiard choice is selected, then "*estimate*" the cue ball path, and mark the first rail hit point.....call it point "S".....see drawing 58.

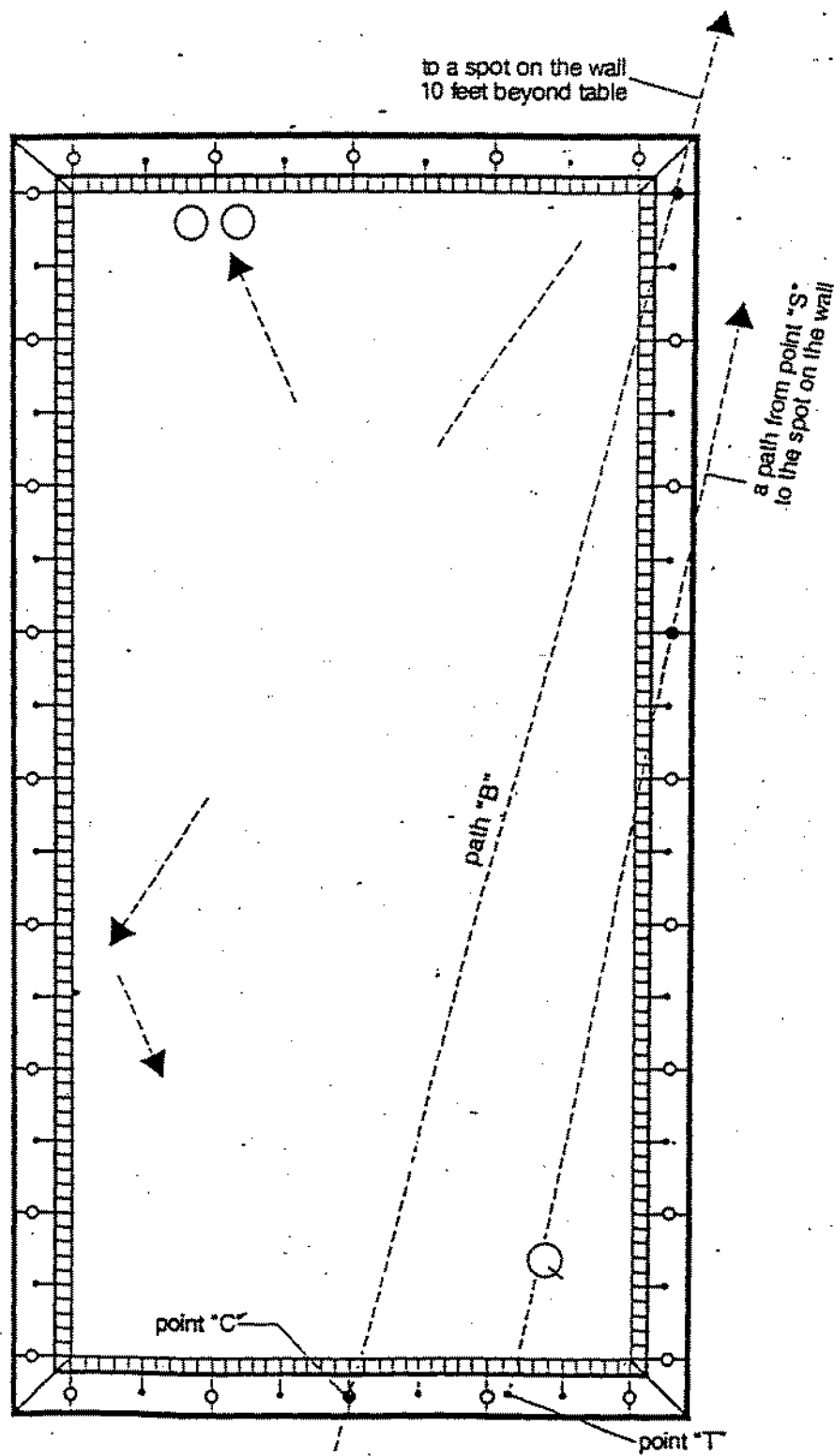
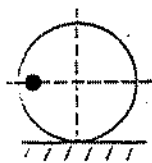
^{giả}Pretend to make a 3-rail bank shot from corner "X".....^{cho rằng, tưởng tượng}assume the first object ball is not on the table.....from the cue ball location of corner "X", sight through the first rail to a spot on the wall about eight feet past the table (path "A"), and mark this spot.....now return to the original billiard example, and from point "S", aim for the spot on the wall.....this will plot the running line.

Use the basic paths as noted when the table was tested, or estimate path "A". Drawing 58 requires a certain technique to have the cue ball behave as you wish, so elevate the cue butt, use a short bridge, and employ a "quick" ("jab" or "pop") stroke.

Drawing 59 has an example where a bank shot is attempted, and an extremely long angle is a problem. Here again, the angle was known when the table was tested.....this drawing has line "B", as the perfect line from point "C", to make this billiard.....but the cue ball is at point "T"..... extend line "B", through the first cushion, to a spot on the wall about 11 feet beyond the table..... and from point "T", aim for the spot on the wall.....the distance from point T, to the far end of the table, is the distance used beyond the table.

Drawing 58





Drawing 59

Basic Diamond System

With the emergence of heated tables, fast cloth, slippery balls along with compressed cushions, the table now plays with more "slide" and becomes longer.....cue ball speed becomes an important matter, because more cue ball speed creates *much longer* angles.

This in turn, will alter the "basic diamond system" running lines, no matter whose "system" is used.....the running lines shown in the "Billiard Atlas I", pages 85 to 133, are OK for most tables.....but on a table with great "slide", a new set of numbers must be utilized.....and take care with higher cue ball speeds.....all of this is determined when checking a table.....the principles and allowances, as shown in this book, are always applicable.

Don't go crazy trying a system during the break-in period of a new cloth, wait a day or so.....the pro's play as soon as 3 hours after a cloth is installed.....are trying to keep the new kid on the block confused?.....remember, they play with these conditions every week.

Get to work and find the running lines for all of your systems, the back-ups, reverse english tracks, etc, etc.....when this is done, and the newly covered table is solved, you will arrive at the closest thing to euphoria.....alter your tracks as the cushion cloth ages.

There are a few ways to design a basic diamond system, which are all complex.....for example, when choosing cue ball english, some have the cue ball english vary, some minimize running english, others employ maximum side english for their hit points.....historically, the most popular system has been the "corner five system".....when the cue ball origin is from the end rail, the numbers turn the corner from the long rail numbers and continue onto the short rail as if this rail was a continuation of the long rail, and it is not!.....this is where various authors change the cue ball english to accommodate their numbers.....too many good players embrace these short rail numbers without question, and without altering cue ball english.

More Diamonds

The "Billiard Atlas" books, ^{xiển thán} maintain that the basic system is a function ^{chức năng} of the long rail and ^{hiệu đại, thay đại} extends the long rail beyond the existing ^{hiện tại} table. This introduces a unique, accurate, complex, system to utilizeall with standard cue ball english. ^{chính xác}

When the "Plus System" is discussed, some design their system by changing the numbers on the short rail, depending on the cue ball origin, thus having a "set" of short rail numbers for each cue ball origin.

The "Plus System", as shown in the "Atlas 1", ^{đồng giản hóa} simplifies all of this and is a good example of how one system is easier to use over another, even though the more complex one may be more popular.

In regard to ^{đi phức tạp} complexity, various basic systems require memorizing much data....so when ^{phân tích} examining a system, give it a test...if it's not very accurate....don't use it, check out another....it is ^{hiển nhiên, rõ ràng} obvious that the extra study is ^{lớn} cumbersome, but this adoption is for the rest of your billiard life ^{đảm theo} ^{évident, manifeste}

The ^{cuối cùng} ultimate study of the fine points of systems and techniques, is located in **Raymond Ceulemans** book, "Mr. 100".....to ^{nhận biết} absorb this material requires a dedication to deep study and equipment of the highest level.....it is written in a few languages, including english, and is difficult to obtain. ^{đạt được}

M

Cue Alignment

Right handed players, often have their cue alignment coming from the "outside-in" so when no cue ball english is applied, the cue ball will "squirt", slightly.....check this out.....use dead draw english and skid the cue ball to the first object ball.....if the cue alignment is ok, the cue ball will go where it is aimed.....mine does not and I have to adjust my hit point slightly.....if the stroke tends to go left, point the right foot outwards more..... if it goes right, point it more forward.

A fundamental understanding of "squirt" is still unknown, but some experiments have been conducted and a slender pool cue, creates more squirt.

If the cue tip strikes the cue ball away from the desired spot, a miss is almost certain to happen....this common problem is caused by indecisiveness.....take the extra time, and be confident of the shot selection.....when a last second cue ball english is changed, remember that the cue alignment is straight ahead to your target, from the cue tip hit spot.....if the cue butt is not aligned, the player will "cut across the ball".....a straight line follow-through is a big problem for most players.....veering to the right or left, is common, when applying excessive english.

The head and the bridge must not move.....it must be absolutely still until the cue ball is long gone.....by moving the head to "peek" at the shot, the player actually moves the shoulder, cue arm and the cue tip. The cue tip movement may be small, but this causes errors.....some expert players look at the cue ball last, some look at the first object ball last.....if the players basics are good, it does not matter.

The greatest majority of shots require english that is equator english, or below equator english.

When selecting a shot, choose the short shot in preference to a longer one.....it's more accurate.

Cue Ball Side Movement

This subject is about cue ball deflection^{đi lệch, dịch lệch, tở lệch} and cue ball curve^{đường cong}.....pages 96 & 97, of the "Billiard Atlas II", touched on this subject.....but the matter of *cue ball speed* was missing.....speed has a lot to do with hitting the first object ball accurately.

Drawing 60 indicates how the "side movement path" changes when using three different cue ball speeds.....all with the same aim point.....in each case, maximum side english is used.

Path "A" uses a strong hitting stroke, with the cue ball path as shown.

Path "B" uses a medium hitting stroke..... the cue ball path is shown.

Path "C" uses a soft hitting stroke.....notice the difference in paths !.

Now a little more is known about errors, and why the first object ball is often hit badly.....strong, medium, and soft cue ball strokes, make a difference.....here are two good rules;

Strike the cue ball ^(giảm nhẹ, vừa đủ) moderate to soft, for *long shots* with running english.....with this speed, the cue ball curve and deflection have a chance to cancel each other out.

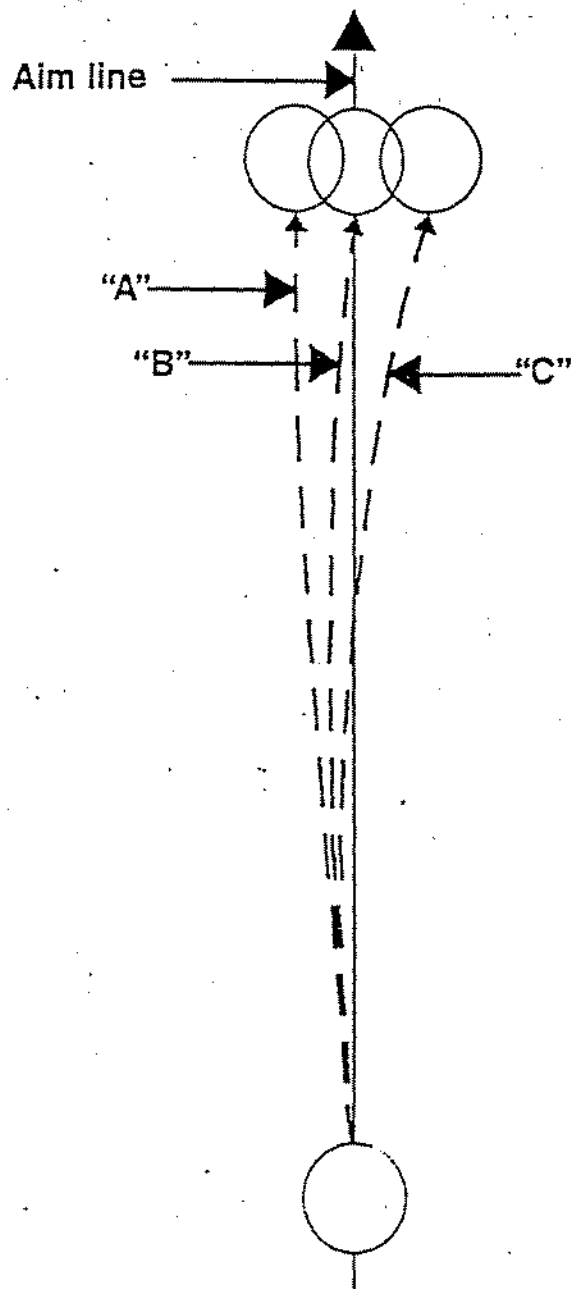
For *short angle shots* with running english, shoot with a moderate to hard stroke.....the cue ball curve has not taken place, so the hit is better.

When you apply maximum side english on the cue ball, adjust the object ball hit accordingly.

^{cân bằng ngang bằng} A level cue will ^{phù hợp với} reduce cue ball curve.

^{giảm}

Drawing 60

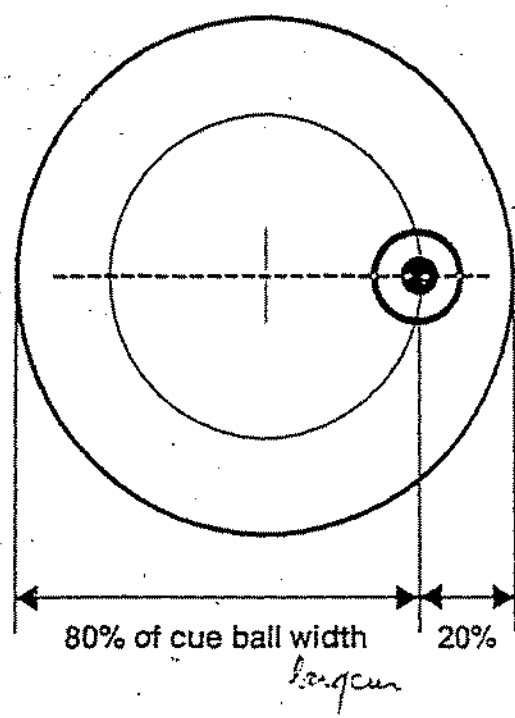


English

Often, very good players use cue ball english that has the cue tip near the outside edge of the cue ball, and in the miscue range. ^{đáy, phía ngoài, tầm}

To put this subject to rest, your attention is called to Drawing "B", which ^{tiếp cận, để làm rõ} reveals that the cue tip hit point, to ^{điểm chạm} generate maximum english, is located within the 80% point of the cue ball width,.....striking the cue ball outside this point, will not add more english. ^{không}

Please be advised that the origin of this information comes from **Nobuski Kobayashi**, one of the worlds greatest players.



Drawing B

Chapter Six

The Short Game

How many short angle shots appear in a normal billiard game, the ones that are ^{hạn chế, giam hãm, giam cầm} confined in the half table?.....a good ^{giả thiết, ước lượng} assumption would be 30 %.....if a player can ^{cải thiện, tăng cường} improve in this area, he not only gets the extra billiards, but gets the bonus of more times to shoot.

This is where the top players shine.....they make a much higher percentage of these shots.....this has much to do with their high averages.

When Sang Lee was asked how to play a certain short angle shot, he said, "there are 15 ways to play that shot".....this chapter will ^{đến cấp} → mention only nine variations of a short angle shot.

New ^{đến vào, hướng đến} approaches such as "System South"....."Lucky Five"....."Frozen Short".....and the "Kirikaeshi" systems are shown.

^{nhắc lại, sự cần nhắc} A review of four other short angle shots from the past "Atlas" books will also be seen.....the very important "Ball System".....^{biên dịch} "Joey's System"....."Rising Sun"....."Lucky Seven".....my apologies for reviewing the past "Atlas" books, but it was important to gather this array.....so the reader will be able to compare short angle shots. ^{nhân sự, kết luận}

^{nhắc lại} ^{so sánh, đối chiếu}

Short Angles

This chapter reveals the many ways a short angle shot can be approached.....position play enters into the decision.

h' d' en , h' r' en

Drawing 62 reveals a short angle shot that has the cue ball hitting the inside of the first object ball, with running english.....the "System South" approach is used.....this drawing is similar to one shown on page 2, except this drawing utilizes the "small table", instead of the full size table.....but the approach is the same.

thay ri

Drawing 63 has a medium short angle, with a hit on the inside of the ball, with running english.....refer to the "Kirikaeshi System" as shown on page 60.....except the "small table" is used.

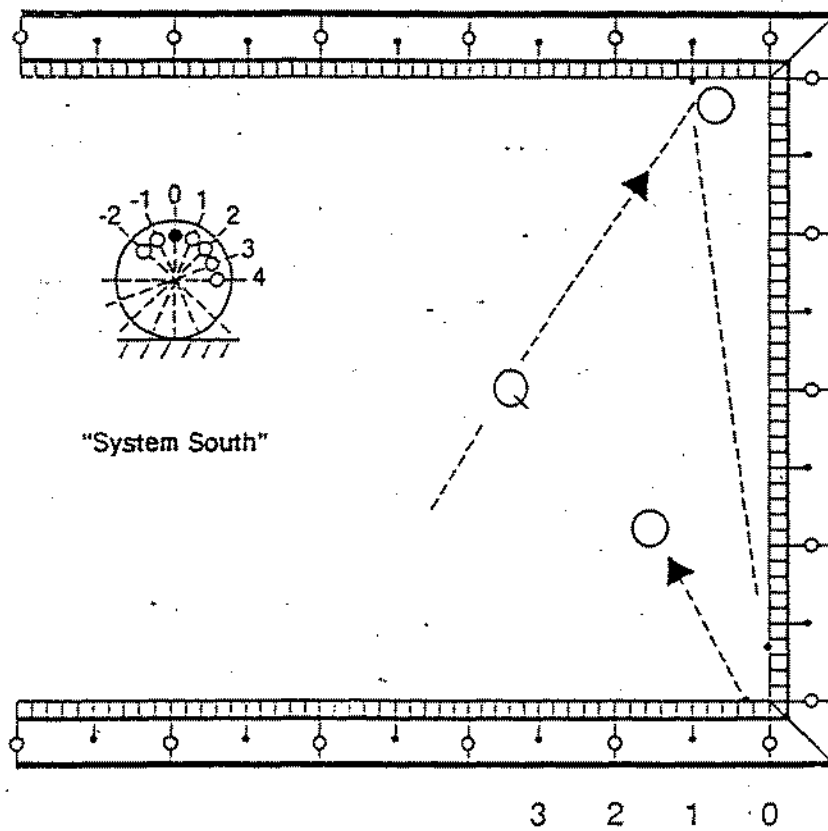
l' am n' en bat,

Drawing 64 will focus in on a very short angle shot using the "Lucky Five" method.....would you believe that a system for this angle existed?

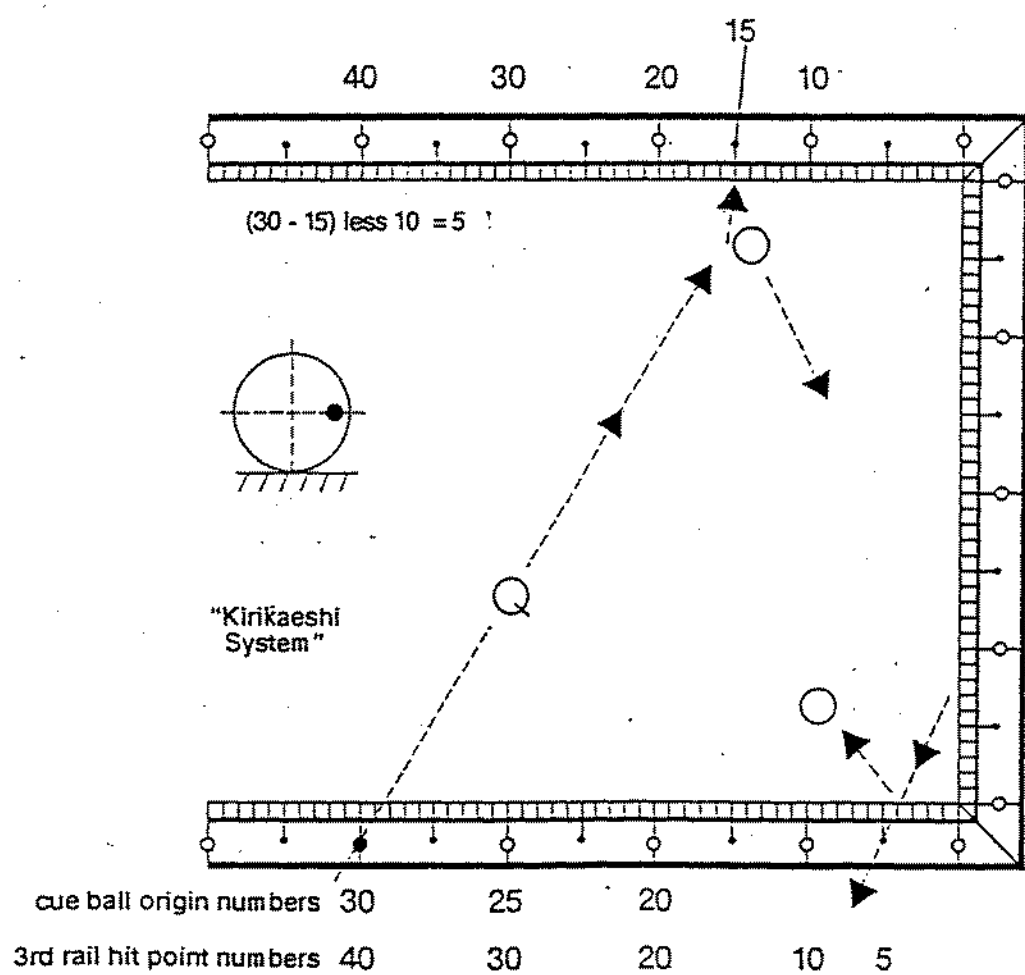
h' en tai

Angle Ferme'

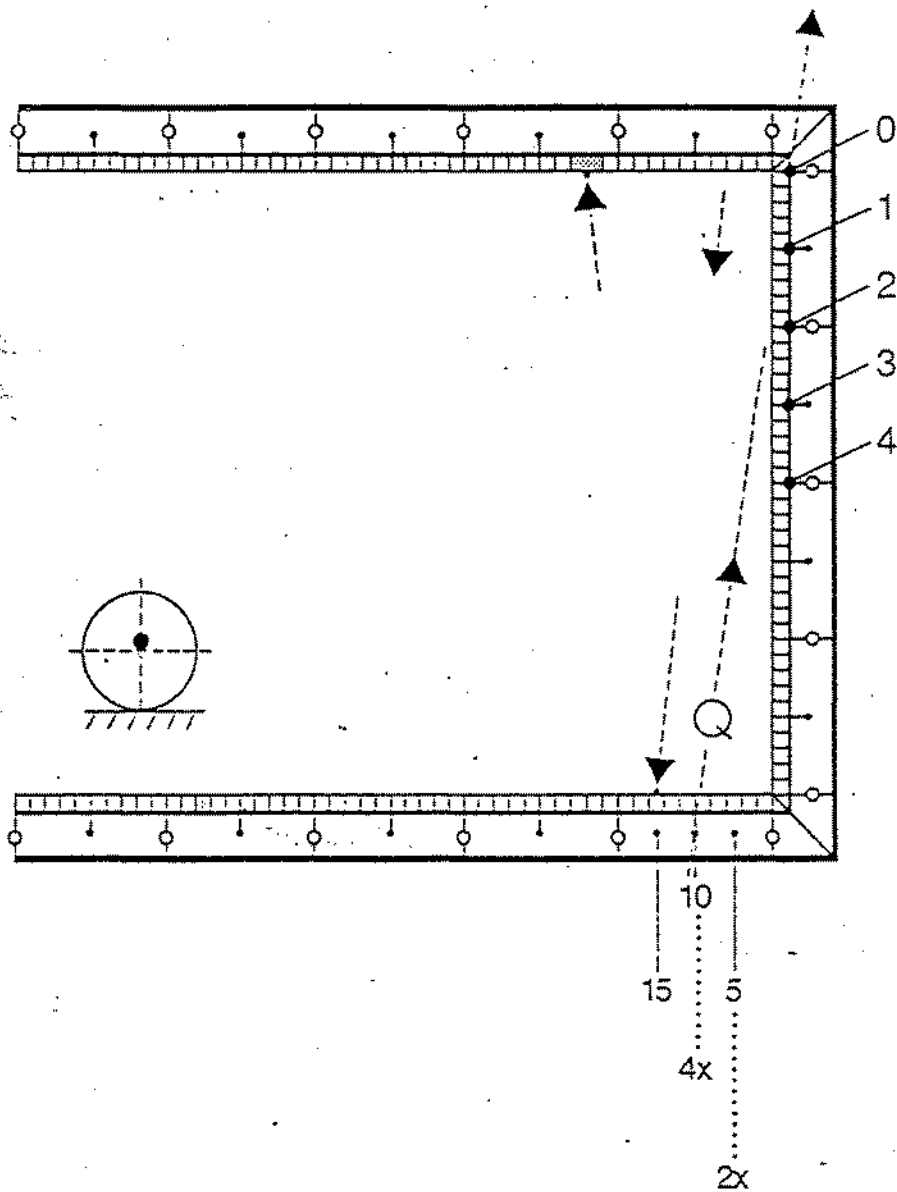
Drawing 62



Drawing 63



Drawing 64



Frozen Short

đồng bằng, tăng dần

Drawing 65 shows two separate ^{thực hành} examples; path "A" and path "B"..... each example uses a "quick jab" stroke, and english as shown.

thực hành

Note that calculations are now in terms of half diamonds.

giới hạn

Path "A" uses a 1/4 ball hit on the first object ball.....and the angle off this object ball is the triangle ^{tam giác} ratio ^{Tỷ lệ} of three half diamonds to four half diamonds.....with more speed, three half diamonds to five half diamonds:

Path "B" uses a 1/8th hit on the first object ball, and the triangle ratio is two half diamonds to four half diamonds....with more speed, the ratio is 3 half diamonds to 6 half diamonds.

When you ^{thực hành} explore this method, you will find that path "B" could easily reach point "X", with greater cue ball speed.

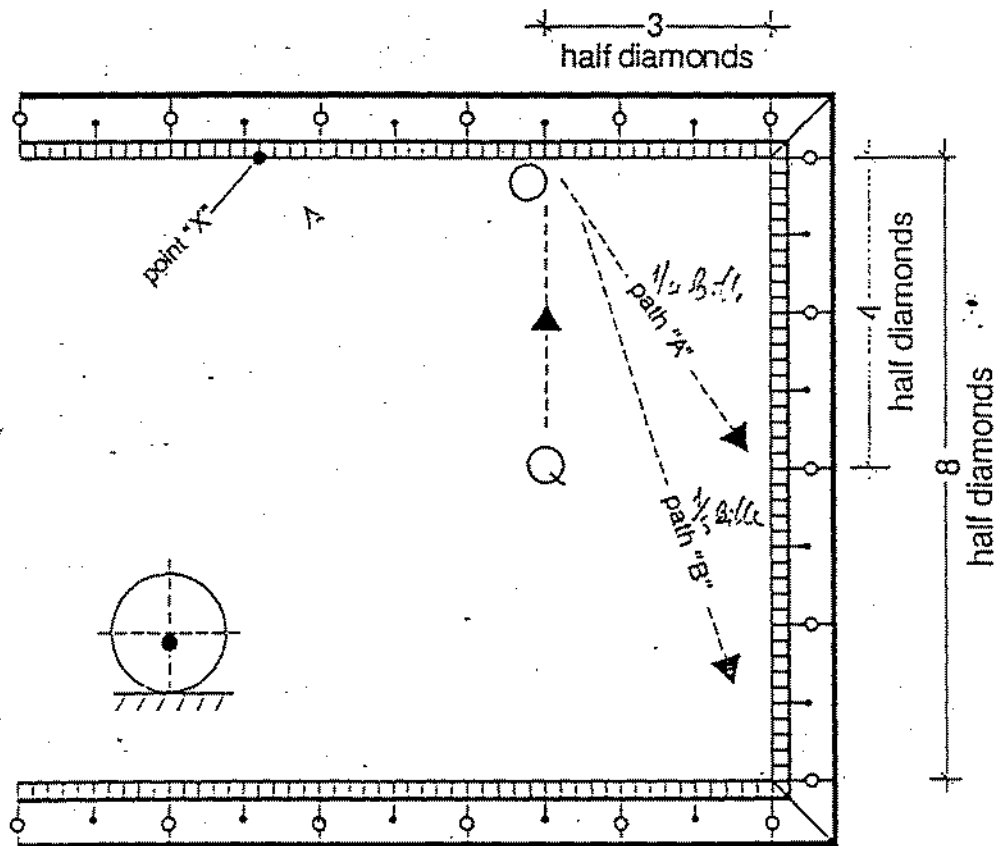
In this example the "outside of the object ball" is hit.....but you could apply this technique for short angle shots that hit the "inside of the object ball", which reduces ^{giảm} the running english and maintains ^{giữ} a sharp angle cue ball return.....a regular shot in **Sang Lee's** arsenal. *vắc, nhọn, rõ ràng*

thường xuyên

Caution.....once you practice this, you may fall in love with it.

chẳng bao

Drawing 65



Short Review

^{b' d' d' d'} Below, you will find a review of a few short angle shots from ^{trick} previous "Atlas" books.

Drawing 66 has a medium short angle, with the hit on the inside of the object ball, with running english.....for details^{ch' hit}, see the "Billiard Atlas II", pages 2 through 5, for the "Rising Sun System".

Drawing 67 has a medium short angle, with a hit on the outside of the object ball, with running english.....for ^{ay' hit, d' hit} data, see the "Billiard Atlas I", pages 46, 47, for "Joey's Short Angles" system.

Drawing 68 has this short angle hitting the inside of the first object ball.....here the player can choose a wide variety^{of angles} of english.....see the "Billiard Atlas II", page 124, where the "Ball System" is shown.... a *smooth full follow through stroke is needed.*

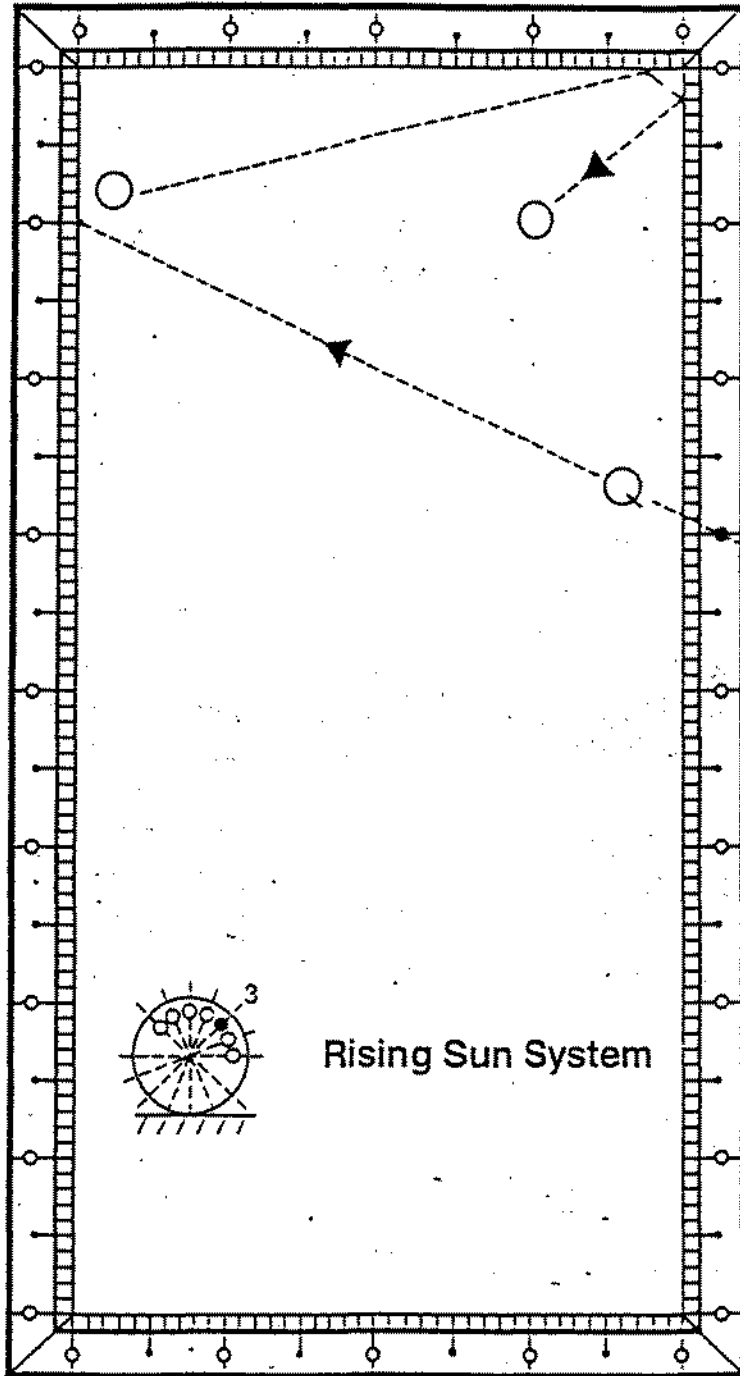
^{n' d' d' d'} Drawing 69 has a medium short angle, with a hit on the "outside of the object ball", with running english..... again, reference^{xem, tham th'at} is made to the "Billiard Atlas II", pages 109 through 132.....showing the "Ball System".....*again, a full follow through stroke is required.*

Drawing 70 has the hit, without cue ball english.....see the "Billiard Atlas II", pages 154 through 157, for the "Lucky 7" system.....which calculates dead ball tracks.

^{v' d' d' d' d' d' d' d' d' d'} Whew !.....nine different systems to handle most short angle shots..... this may involve a couple of months of practice, but the player's offensive improvement should astound his opponents.

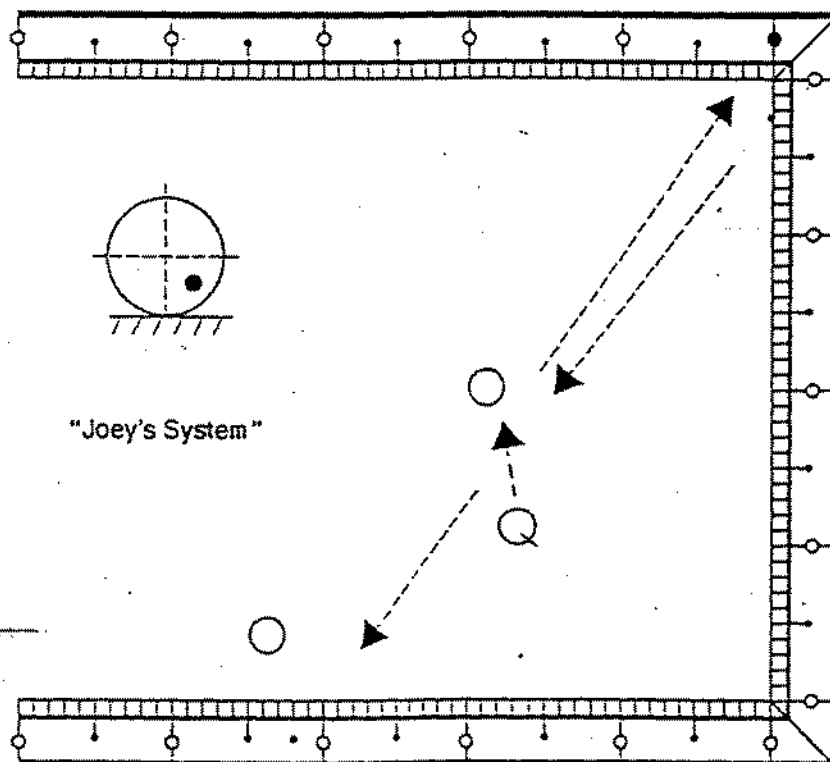
A players' short game can not be very good if he is lacking this kind of knowledge.

Drawing 66

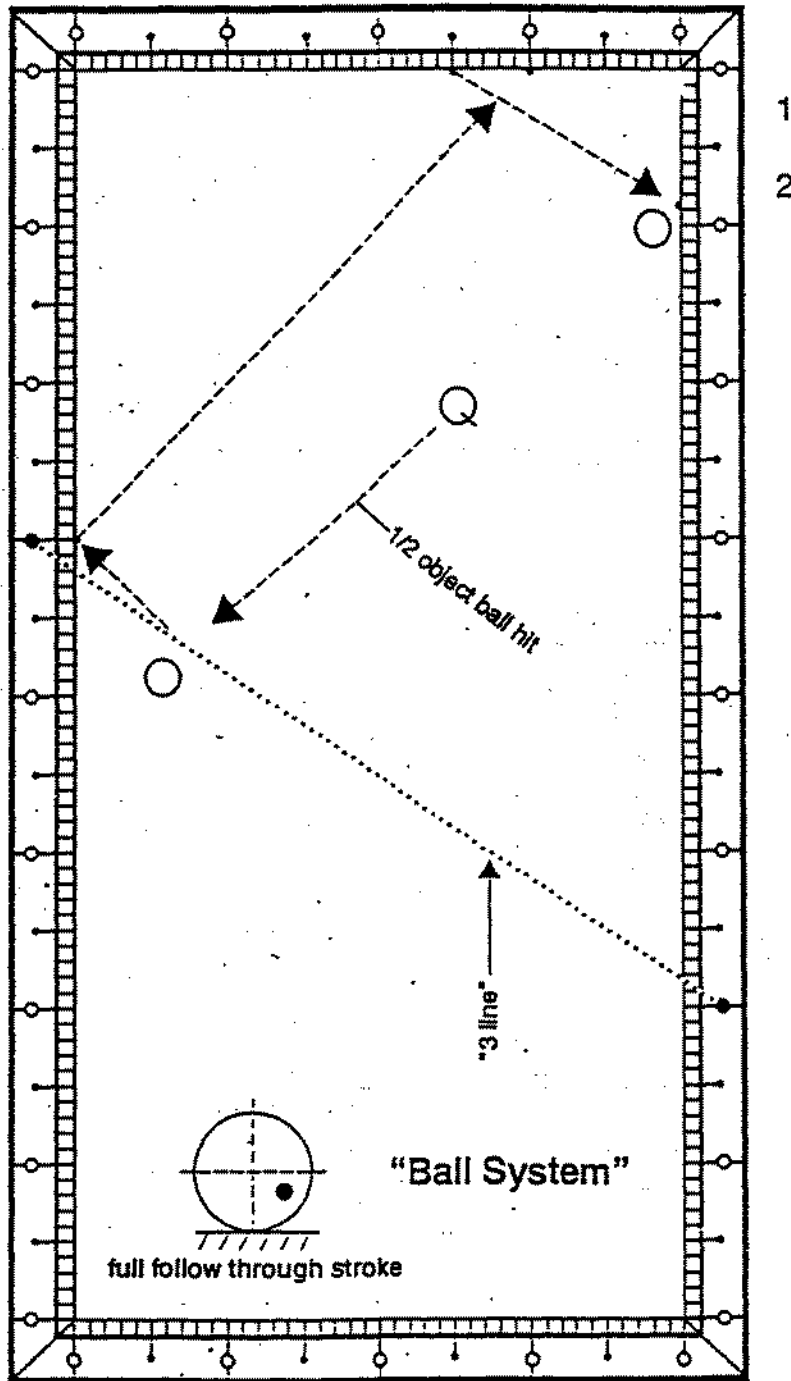


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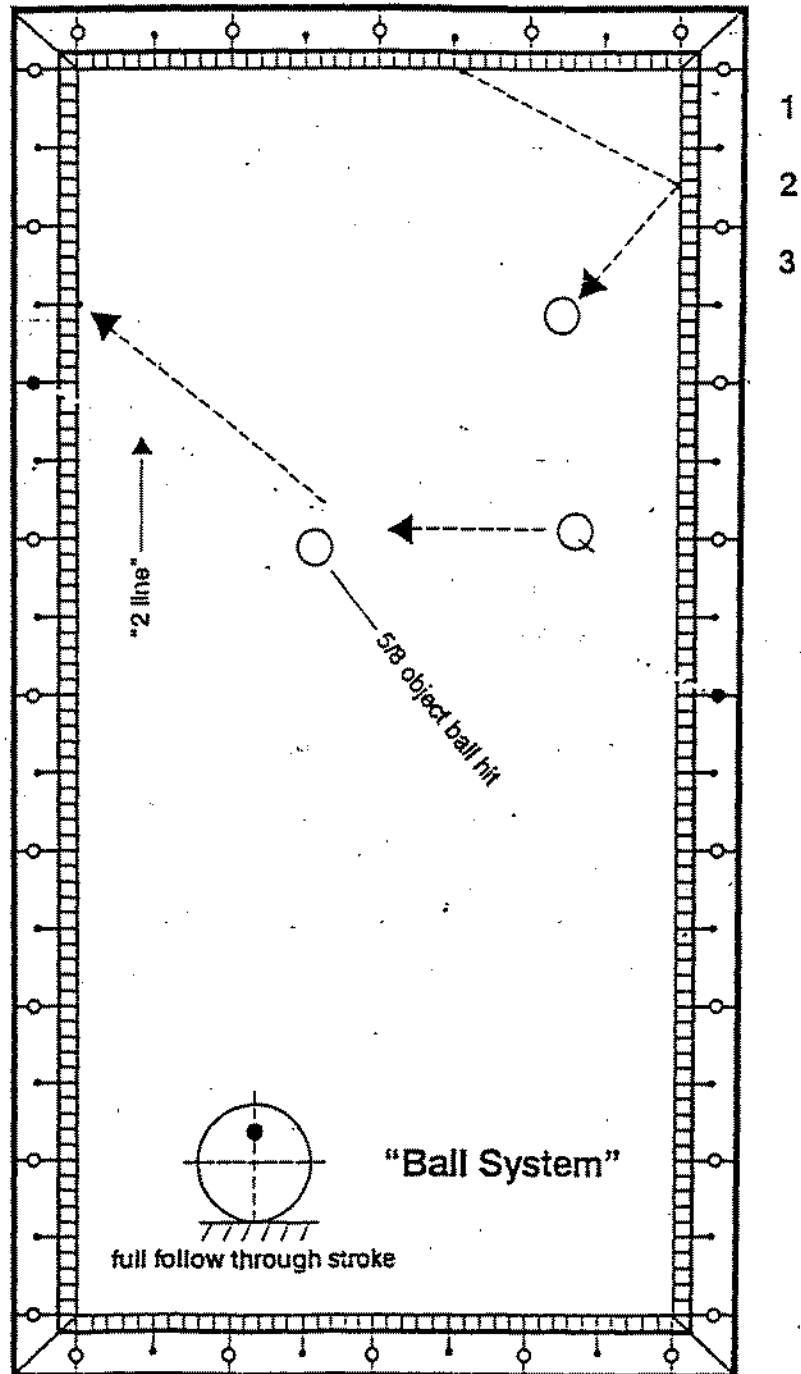
Drawing 67



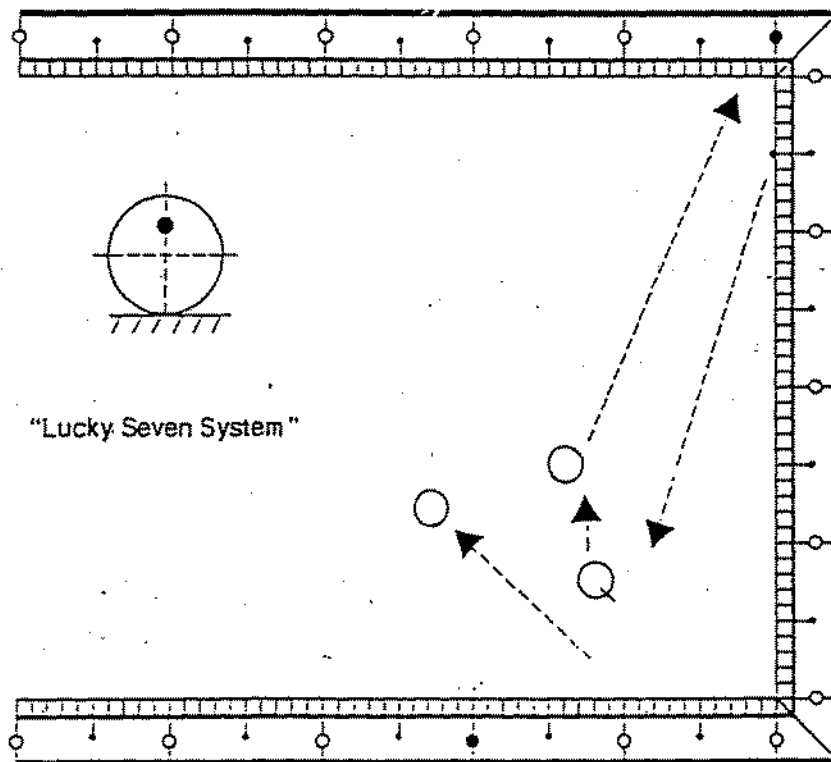
Drawing 68



Drawing 69



Drawing 70



Spot Check ^{→ nĩ kiể̃m soát, nĩ hũa chĩ, nĩ đĩng lại}

^{hĩ vào} Relying on your "feel" for a 3rd rail spot is a nice way to approach a shot.....your subconscious ^{hĩn tĩn} knows the cue ball english, and the speed, etc, etc.....but selecting the wrong 3rd rail spot is easy to do.

In drawing 71, the player "feels" that the final path to the billiard, is from the 3rd diamond, and should be on target ^{mũc tiẽ}.....this was an educated guess ^{đĩ chĩn}, based on his experience.....when this shot was examined more closely, an adjustment of an entire ball width took place. ^{kiể̃m soát, lĩn chĩn, lĩn chĩn, lĩn chĩn, lĩn chĩn} ^{xĩy ra, thĩ cũ hũa}

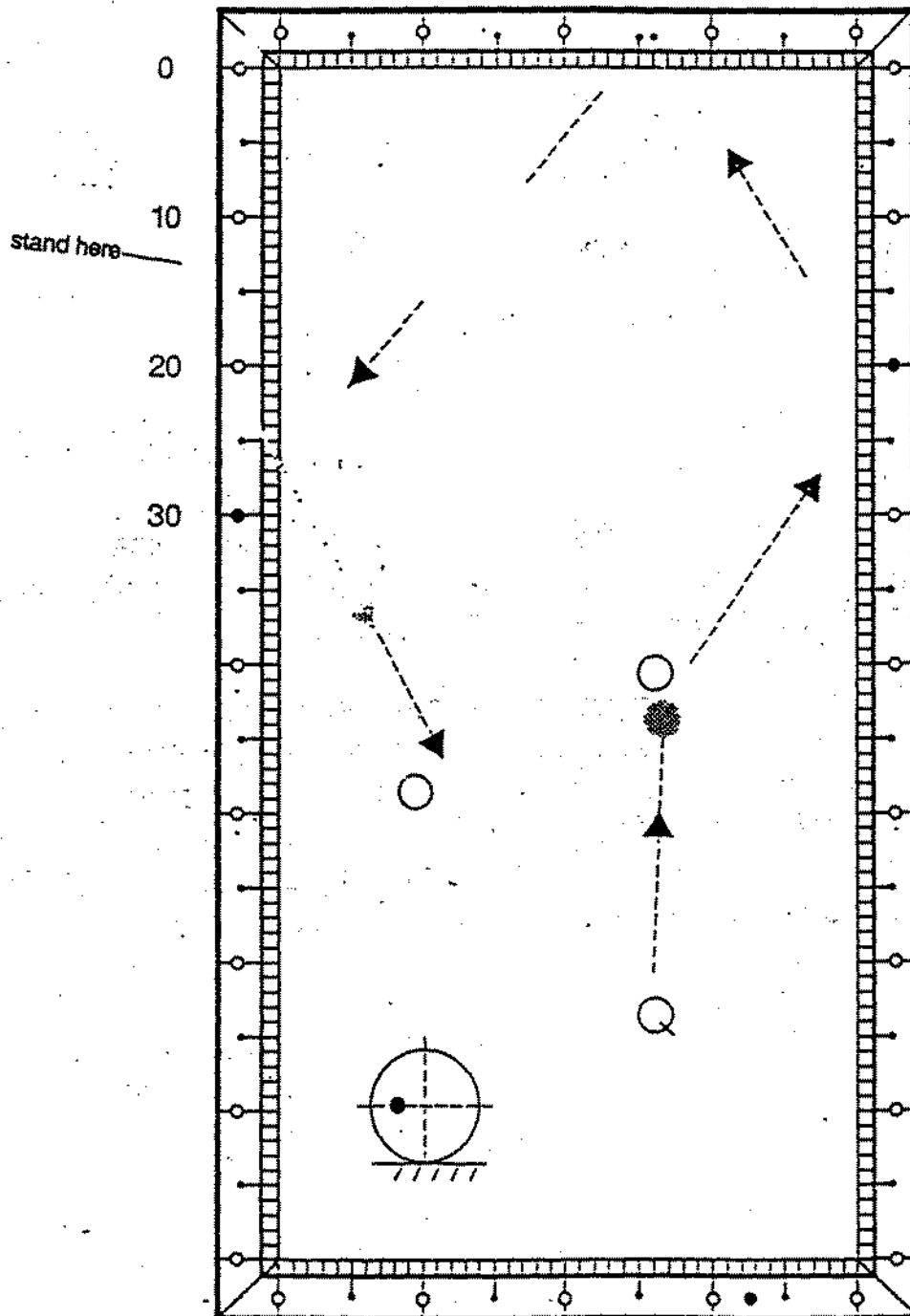
The player must walk over to the 3rd diamond and examine the "angle in", and the "angle out".....then spot check the running line from his knowledge of running line calculations.....a case of having "feel" being a little off, and seeing the wrong spot.

Drawing 72 reveals a common ^{thĩng thĩng, chĩn} mistake when selecting a 1st rail hit point.....before bending over, the player has to suspect ^{đĩ chĩn} that a corner cue ball hit will have a problem whipping ^{giĩt} action, and maybe his "feel" did not take this into account.....he must then go to the "Joey System" or use the "Ball System" to locate ^{đĩn} a better first rail hit point.....maybe employ a spot on the wall technique also.....then, "feel" for the shot.

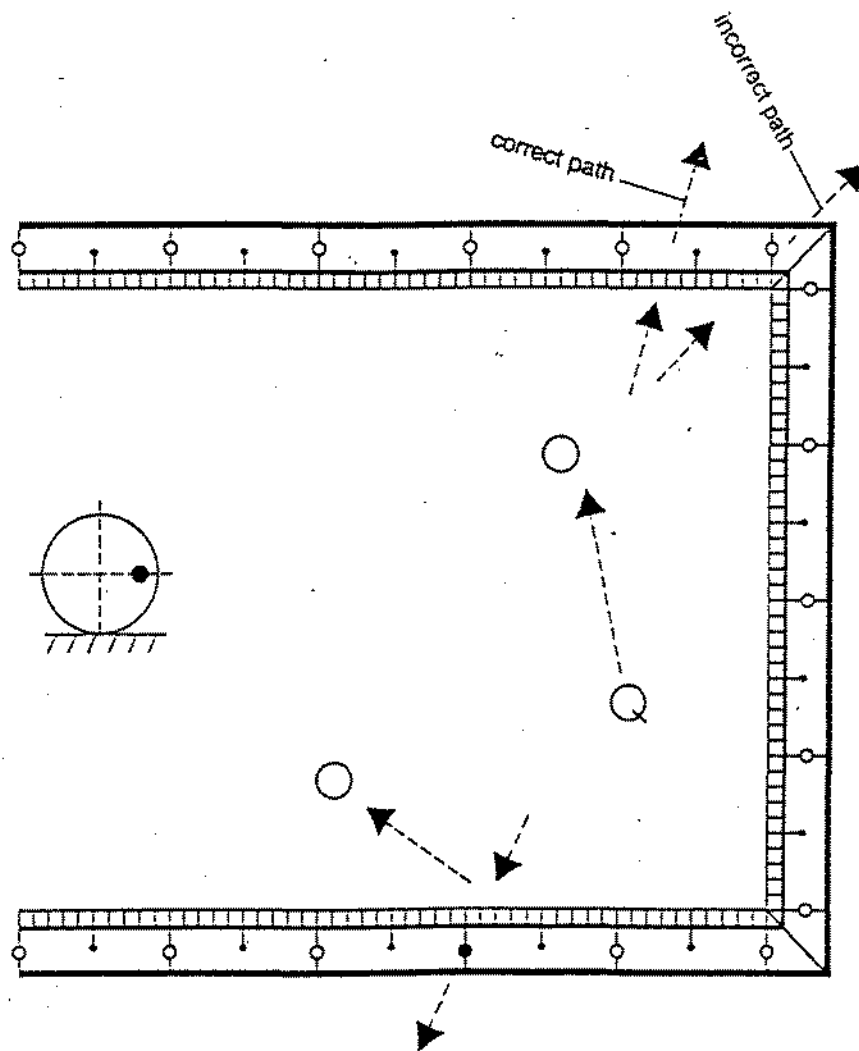
The point here, is to be sure to walk over to that last rail hit point on all shots.....spot checking your "feel" point is a good practice.....if you watch the world class players, they do it all the time.

^{đĩn giĩt} ^{đĩn giĩt} Dan Segal is always researching this game.....he found a method of sizing-up a shot that is interesting.....in drawing 71, he imagines the cue ball origin at the shaded area, and from that point estimates the required english, speed, follow through, etc, etc, to make the billiard. He now has to determine what to do to the cue ball between that point, and the cue balls' original position.

Drawing 71



Drawing 72



THE UNITED STATES OF AMERICA

1944

1944

Chapter Seven

Ng/tie co ban

Fundamentals

thuy, thuy xac loi chi dan

quy tham gia

Learning a sport without proper instruction, usually has the participant never achieving a high level of expertise. ^{with ball thao} he may spend many years in ^{with the} pursuit of excellence, and during this time may be unaware of what it takes to get better. ^{chi gian nh} ^{o g thac}

thieu (a)

The lack of "basic training" applies to the cue sports also.....the player may have never obtained the knowledge to hit the ball correctly.....systems are based on hitting the cue ball with a smooth, free, follow through stroke, and a determined rate of speed.

The average player does not realize that his stroke may cause problems.....he thinks his stroke is fine, after all, he can make all of the shots !.....what he doesn't realize is that his stroke may be causing other problems, and these problems make it impossible to be consistent in making billiards, and using systems and techniques.

Too many players do not know that they are "steering" the cue, and this causes all kinds of crazy things during the stroke.....having the cue veer left or right, in the follow-through.....or on too many occasions, the cue is pulled back too fast and interrupts the stroke cadence, not allowing a smooth stroke.

The player may unconsciously shorten the stroke length, and ^{poorly} pokes the ball, or has the cue ball speed differently than planned.....this has to do with missing billiards.

This chapter will be confined to a study of the "stroke-grip-wrist-rhythm-english" mechanics.....hopefully, this will provide the greatest amount of improvement, with the least/amount of effort.

and lengthen
p. 125

quantity
some time

More

when the
game is
back to

Once a player's stroke is corrected, other improvements occur, like better object ball hits..... better english control.

The proper stroke is easy to learn.....the rhythm portion is also easy to understand.....both require relentless loyalty.

like a dog, loyalty

From their earliest beginnings, most billiard players are without proper "basic training".....it is recommended that learning the game "backwards" be started.....a sizable portion of this chapter is devoted to this.

you, defense, courage

Obtaining the required "basic training" is a time consuming chore..... but it is a labor of love.

travel

It can be researched through ancient reading material, such as *Willie Hoppe's* "Billiards as it should be played", or *Welker Cochran's* "Scientific Billiards".

Absorbing this may seem insurmountable to the reader, since few like the idea of starting over.....but if the player decides to improve, and makes this kind of commitment to his game, then learning the basics is required.

engagement

However, for those that want to "peek" into the area of basics, the "Atlas" has included many "highlights", regarding the fundamentals.... most of this material was obtained from past champions.

The all-important "theory page" is ^{the} advice from the top.....if you want to improve, or at least look more professional, follow these words..... your game will look like a class act.....and your opponents will recognize this wonderful difference in your game.

advice

When the cue ball is frozen to the rail, have the cue tip follow through in a straight line, not up.

Some experts like to raise the butt of the cue and hit down on the ball.....this way the cue does not go up.....others use discipline to maintain a level stroke finish.

The Magic Cure

First-rate information can be transmitted ^{truyền, chuyển} via ^{qua, theo đường} the written word.....for example, is it possible to describe a good stroke and explain it in a simple way ?.....most 3-cushion players do not have "the" proper ^{chính xác} stroke, and up to 1995, little has been written on this subject, other than 60 year old books.

In the June 1995 issue of *Pool and Billiard Magazine*, **Joseph Gwinn**, described how to obtain ^{có được, đạt được} a proper stroke.....this billiard genius is an MIT engineer that spent 45 years specializing ^{chuyên về} in accelerated ^{tăng tốc} motion.....his billiard research centered around those champions ^{nhà vô địch} with the best strokes, and focused ^{trọng tâm} on **Mosconi** and **Hoppe**.....how he was able to determine the details ^{chi tiết} of each part of the stroke, in a simple manner, is mind boggling.....a "stroke" of luck for the billiard world ! ^{không ngờ}

If a player decides to follow **Gwinn's** recommendations ^{sự khuyên nhủ, lời chỉ dẫn}, he will find his stroke will be changed dramatically.....and best of all, his billiard output will not suffer ^{hết sức}.....it is quite easy to do.

Now for the mechanics.....**Gwinn** breaks the stroke into a few parts, and gives every move a description. ^{vi mô tả, diễn tả}

Clamp ^{giữ chặt} the upper arm against your body with a firm ^{chắc, chắc chắn} closed ^{chắc} armpit.....why ?.....because the elbow ^{khủy tay} will not fly ^{bay}, and the brain will know where the elbow is at all points of the stroke. ^{đầu óc}

The fore-arm ^{cánh tay}, below ^{thấp hơn} the elbow, is limp ^{mềm, thả lỏng}.....the forearm muscles ^{cơ, lực} do not accelerate the cue. ^{không tăng tốc}

Move the limp fore-arm and wrist ^{cổ tay} back and forth ^{về phía trước} with the upper arm muscles (muscles ^{cơ} above ^{trên} the elbow). The upper arm above the elbow does not move, only the muscles.

Cure +

The wrist is loose^{lỏng}, with the thumb^{ngón tay cái} and fore finger^{sub ngón} softly but firmly^{chắc} holding the cue.....the middle finger^{vừa đủ} barely touches the cue.....the major^{chủ yếu} part of the "hand squeeze"^{giết chặt} is being done by the base of the thumb and base of the forefinger.....the back of the hand, is an extension of the forearm.

The wrist cocks easily with the hand on top of the stick.....this will cause the hand to open.....the last three fingers do not support^{chịu} the weight of the cue.....the thumb, which points down, and the forefinger now hold the cue (when wrist is fully cocked).

Accelerate the upper arm muscles to start the wrist moving toward the cue ball.....the limp forearm remains.....you will naturally tighten^{niết chặt, siết chặt} the grip^{cầm chặt} as the hand closes.....the wrist will uncock as the stroke is completed.....the wrist movement is what gives the player the effective^{hiệu quả} blow^{từ lực} that allows him to put excessive english on the ball..... a wrist snap^{nhảy}, like a whip, will generate greater cue ball effect^{hiệu quả, tác dụng}.

Upon gripping the cue butt^{đầu cán}, the muscles in the forearm automatically tighten.....if these muscles are not loose, the cue ball will be hit with a stiff, ineffective^{ô co, hiệu quả} arm movement.....again, the elbow is used as a pivot^{trục} and should be stationary.....the upper part of the arm does not move, the entire^{toàn bộ} stroke is from the elbow.....moving the arm above the elbow causes a "pump handle" stroke.....another tip is to let the shoulder go limp.

After the hit, nothing must move.....imitate^{mô phỏng} a statue^{tượng}.....view the results of your shot from a "bent over" position.....try this in a 20 point game and check it out.....your billiard production will not suffer, because you are "swinging" the cue, not "steering" it.....this method will provide much better hits, and greater cue ball action.

If we ever get a "Billiard Hall of Fame", Joe Gwinn should be the first one voted in.

Note: Excerpts from a past champions writings are included in the wrist portion of Gwinn's text.

Rhythm → nhịp điệu

This area of billiards serves a purpose that requires a more detailed explanationinitially, I looked upon this cadence like a "waggle" in golf, just making the cue go back and forth to loosen up.....but this is not the case, it's much more important.....below, you will find what this has to do with management of errors.

The average room player draws his cue back much too fast, mostly due to anxiety.....causing a faulty forward stroke.....the cue must be drawn back slowly, and all the way back to the desired stroke length.....the cue forward motion now travels at an increasing rate prior to the hit, with care taken not to "lessen in speed"

During the "selection" part of an inning, the player decides all the aspects involved in making the "entire shot".....items such as the bridge configuration, cue angle, stroke length, cue ball english, cue ball deflection and curve, wrist use, back hand location, speed, etc.....this all becomes part of the "entire picture".....take your time.....be thorough.....this needs to be stamped into the subconscious.

When bending over the shot, he checks his stance, and back arm and hand location.....when the "rhythm cadence" portion of the inning is started, the player must automatically "imitate the entire shot" as he pictures it.

The unconscious state will imitate each item while the cadence is going on....the bridge, the wrist, the speed, "swinging" the cue, stroke length, cue angle, etc, etc.

If he decides on a "long and slow" stroke, his rhythm cadence has a "long and slow" movement, and the same with a shorter stroke.....this cadence becomes an important part of making billiards.

More Rhythm

đặt hợp chặc chặc

Incorporating all of this in the "rhythm portion of the warm-up" will solve execution errors.....and saves the full force of the blow for the forward motion.....that's why more time is needed when bending over the shot.....these *mechanics* need to be *stamped into* the subconscious.

hiện thức

During the cadence movement, the player can now free himself to *hit the shot with his unconscious self*.....using feel for the execution of the shot.

o có ý thức

niềm thực hiện

It is not against the law to stop, and stand up again, when an adjustment is needed.....the top players do this all the time.

quá tốc

đó đúng

lúc ra

bất ngờ

After the trigger is pulled, the player must stay motionless until the cue ball stops, or at least for a long time.....a very good habit to get into.....peeking at the shot too quickly, causes problems, such as slightly pulling up and not following through completely.

nhìn vào

mong

lúc lên

For most shots, the top players spend very little time in this entire process.....they quickly go to the third rail hit point, picture the cue ball english and establish the running lines without going through the steps mentioned here.....they learned the systems and techniques to make billiards, many years ago.....this is an automatic process for them.

ít thời

biểu

hiện thực

They still take great care with each shot, taking 10 to 20 seconds before striking the ball.....you will never see a world class player take two strokes and hit the cue ball.....the top players have to process a whole bunch of information.

điều.

Dick Jasper uses about twelve rhythm strokes before he hits the cue ball, which makes him one of the slowest players on the tour..... when asked, "why do you take so much time bending over a shot ?", he replied, "each inning is very important and I have to be careful not to make a mistake, otherwise I will have to sit down".

The Wrist

The wrist movement is what gives the player the effective blow that allows him to put excessive english on the cue ball. *coups*

Balkline players learn how to increase cue ball acceleration using "snap", through wrist movement..... the average USA room player has little experience in this area, but can still improve with the addition of some basic knowledge.

To obtain more cue ball spin, use more wrist, or a quick back hand closing, or use bothin this way, much english can be applied and still reduce the cue ball speed.....to minimize cue ball spin, use less wrist. *effect*

Dan Segal has completed a study regarding this, and compares his findings to a cracking of a whip:....."when I crack a whip, without the use of the wrist, the whip end will have only so much force..... if I repeat this using a wrist snap movement, more force will be evident". *coups sec* *coups sec*

If the entire wrist is "snapped" during the forward motion, then *maximum* force will be applied at the end of the whip.....different speeds can be applied to the whip snap.....long and slow.....quick and short. *fast* *slow*

These same principles apply to the wrist in billiard play.....**Segal's** insights reveal how the length of stroke along with wrist and hand usage, change the cue ball impact. *an idea, plus force*

Most strokes have the maximum "acceleration force" point occur "**beyond**" the cue balls location.....somewhat after the cue tip first contacts the front/edge of the cueball. *harder* *place*

(Please be reminded there are many occasions where a full, firm grip is employed.....and wrist use is minimal).

Wrist, etc

If you wish to stop here in this analysis and employ the wrist snap for maximum english, pleasewhen you want to go one step further, *Dan Segal* offers suggestion.....if you want the maximum force at the exact moment of cue ball / cue tip contact and not beyond it, use the wrist snap and pretend the cue ball is at least a half-ball closer to your cue tip than it really is.

If you are striking the cue ball with more force, then pretend the cue ball is a full ball closer than it really is.....this increases the cue ball effect.....full follow shots become easier.

Segal's theory is to use a shorter bridge and a shorter stroke to reduce errors.....he employs a "normal bridge length" for forceful shots.....using english, instead of arm force, for getting around the table.....this is important because all the power you need, comes from your hand.

Sang Lee appears to vary his stroke length each time he shoots, almost never using a full follow through stroke.....all with different speeds.....this technique takes a while to learn.....high acceleration snap strokes are difficult to control.....but at least the reader is now aware that this exists.

Theory

"I knew the game was different", said **Semih Saygainer**, after watching **Ceulemans** play in a late 80's tournament.....at that time, he was not yet a 1.00 player.....this was his response to my question of "what was the turning point in your career ?".

This was fascinating, since this led to his meteoric rise in world class play.....yet I could not determine exactly what it was he found.

The advice you are about to read, comes from the highest echelon of the billiard world, and probably had much to do with **Saygainer's** success.....this guide will serve as gospel for those who seek the proper "direction" for excellence in billiard play.

A primary requirement is to see the various shots and select the proper shot, then visualize the paths of the balls, to avoid the "kiss".....the avoidance of "kisses" makes a big difference.

A player is to distinguish between shots which seem alike, but need to be approached differently because of a small difference.....like chess, there are zillions of angle combinations, and finding the "correct path" is not easy.....it is difficult to establish a cue ball location in respect to the final object ball location, then be able to calculate an accurate "running line".

Making the next shot easier, will make a difference in production.....cue ball speed becomes an important item.....say good-bye to hitting the balls hard and losing control of them.....the player must be able to use cue ball speed correctly and know where the cue ball is going to finally stop.

If the first object ball can be positioned into a desirable area, the next shot will be easier.....if you are an average room player, probably 30 % of your shots are available for "position play".

Theory Continued

When reviewing a shot for the "kiss", or "position", there is a choice of object ball hits, (half ball, quarter ball, etc), and a choice of stroke techniques, (short, quick, long, etc).....estimate the area of the kiss crossing, then either delay the cue ball crossing, or delay the object ball crossing.....maybe a dead ball shot is required, or a thin hit with deep draw.....speed is most important.

Attractive as they may be, try to forget about two-way shots, and concentrate on an exact speed to reach the last object ball.....this way, the player can control the final location of this last object ball..... choosing the correct shot and not the most comfortable shot, is the object of all this.

Once a player takes these steps, then he is on the way to being a better player.....losing control of the balls, makes the above impossible.

After this process is learned, calculating a shot takes but a short time, like micro-seconds to review.....for example, test how many seconds it takes to select an easy shot, maybe 3 seconds ?.....another 5 seconds to calculate all else ?..... these top players have much going on in their heads, and are able to process all they need, usually within 10 seconds.....a little longer for a difficult shot.

A well intentioned known player was once quoted as saying "the professionals shoot too fast, they can't possibly calculate anything". This is the kind of advice that's kept the average player in the dark for the past zillion years, the best players know the mathematics of 3-cushion play.

Position

Past books and magazines have shown the best places to drive an object ball....for the sake of those that have not seen these diagrams, let me say that placing an object ball near a long rail, offers a "big" ball.....better yet, is to place one object ball in a corner.

Eddie Robin has written a book entirely on position.....during our phone conversation, he spoke about having all the balls in the middle of the table, which is desirable, but the target is smaller.....his fine book goes into detail on this subject, and is a favorite in Europe.

If a person is playing pool and not playing position, one has to say that this player is not very good, a rank beginner.....a 3-cushion player that never plays position, has to be considered a lesser player.

One of the most important ingredients in the high averages of the world class players, is position.....when *Torjorn Blomdahl* was asked what percentage of his billiard activity involves position playhe replied, " about 40 %, it used to be higher but I was missing too many billiards ".

Dick Jaspers was asked how much would his game suffer if he did not play position....."my offensive average would suffer about 20%", was his reply.

I am not sure how this will help a player's perspective, but this is how the top players operate.....not all shots are position shots, and may not involve a "kiss".....when this occurs, shoot at the most comfortable shot.....permission is granted to let the balls get out of control, and maybe you will obtain a favorable position.

When a player is in a quandary involving position or the billiard..... *the billiard is the first priority.*

Stroke Styles

When observing world class play, if you notice the different styles, you will see that *Sang Lee* employs lots of english, uses much wrist, thin object ball hits, and abbreviated follow through strokes.....all with great finesse.

Torborn Blomdahl seems to drive the cue ball into the first object ball, and is a more forceful player....*Junichi Komori*, like so many Japanese, appears more mechanical.

Raymond Ceulemans seems to be like a machine, but exemplifies the "perfect" style, with full follow through strokes as the general rule.

When watching *Sang Lee* from a front view, I noticed the rear of his cue stick waving back and forth, up and down, but when he hits the cue ball, the cue is in a straight line.....he also employs a "loose bridge", along with a loose rear grip and wrist.

Ceulemans does not seem to have the rear of his cue move sideways, or vertically, prior to cue ball contact.....he employs a "firm bridge".

Richard Bitalis and *Efren Reyes* both employ a very long bridge.... it seems that accuracy would be sacrificed with this bridge, but not so.

World class players must all have good memories...if I had to wager on who has the the best memory, it would be *Sang Lee*.

Chapter Eight

The Mental Side

The lack of a good mental game often keeps a player from getting better, and is usually responsible for playing below par.....it's sad that a person can't play in accordance with his knowledge and skills, just because he's never learned the mental game.

During tournaments, some players never play their game.....these are the same people that do badly on school tests.....it's as if some other person invades their body and takes over the cue.....When things go badly, it is said that a player's computer does not want to accept the responsibility for the proper aim of any shot, and has a tendency to help all missed shots.

If this is so, the player needs to teach his computer self to stay out of the judgment of the stroke, until this need *is stamped into* the computers brain.....it has to see again, and again, the perfect hit spots and execution.....and takes this image from a conscious level, to an unconscious level.

Focusing on concentration does not help, because it is something you cannot make happen.....it happens when you *allow* yourself to become interested and focused on the shot.....being "in the zone" is impossible to describe.....you don't know you did it, until you have awakened.....then you realize you were in a different state of consciousness, and became part of the table.

The "mental game" reveals that everything a player has ever learned is stored in his subconscious mind.....this includes his skills and awareness of how to play winning billiards.....it no longer requires the conscious mind to work so hard.....the subconscious mind can do most of the work.

Get Mental

How many times have you missed a shot because you were occupied with planning the shot, or planning a safety ?.....scattered goals reduce concentration

The best performances happen when the responses are automatic and effortless.....ninety per cent of one's mind power rests in the subconscious.

Learning to quiet the mind is the first step.....forget about two minutes ago.....the message of "hurry up and shoot", must be erased.

The level of interest must deepen to the point where the player loses himself within the game, and the outer world disappears.....details are seen more clearly.....you know the best thing to do in all situations (within your level of expertise), and anxiety disappears.

Learn the correct way to play a given shot and practice it.....this has your memory picking up the results and storing it.....each time you do this, the brain recalls it and updates it.....like a tape recorder, it does not know right from wrong, it only knows what you feed it.....if you change something at the last second, you feed it confusion, and it will respond accordingly.

Without knowledge, the player may be practicing the wrong way to hit the shot, over and over.

Your emotional baggage might be in the way in visualizing a desire you want to create.....pre-judgements and concepts about "how to play billiards" can blind you to the truth.

These mental skills can be developed by organizing your thought patterns so you can become distraction free.....here is an example of how to start.....think of your mental game as having two parts.

Mental Etc

The first part is analyzing the shot selection while scanning data with your subconscious self, which knows exactly what to do.

You may have a talk with yourself that goes like this.....find the big ball.....look for the kiss, and position.....select the object ball hit and the speed.....select the 3rd rail hit point.....establish cue ball english.....check the cue angle and the kind of stroke.....how much wrist.....adjust for cue ball deflection.....go slow, and make sure all is correct, or to the best of your ability.....your subconscious must be certain.

The second part is bending over the shot and dealing with the thought process of *performing* the proper skills.....again, this may be your conversation.....get in my stance.....check my bridge and gripget the proper bridge length.....now start my rhythm.....zero in on the first object ball hit and the required speed.

It's apparent that at least a half dozen rhythm strokes are necessary to do all this, probably more.....it would be detrimental to be unsure of the shot, which would mean returning to an earlier step.....if you are not sure of the shot, don't shoot !.....go back a step or two, that's the way to stay focused.

Visualize making the billiard, before you play it.

Have this process be a daily ritual.....do it each time you shoot.....if you wish to be unfair to yourself, rush the shot.

You may be your own worst enemy, and can undermine yourself better than anyone else.....maybe it's impatience, or apathy.....once these are faced, then they can be corrected.....being negative, or having doubts fogs our vision, and these are the players worst enemies.....they make you control the shot.....when the player tries to control the shot, he loses awareness.....when he loses awareness, he loses control.

Mental Etc Etc

The player can't be thinking about how to execute the shot....he has to trust it will be done.....the "negative alter ego" is a problem, so locate this for yourself.....this makes you miss shots.

Doubts and fears are a natural part of human life, so notice them to see if they carry any truth.....sometimes doubts are wonderful early warning messages when something is not right.....if that is the case, take action and adjust your creative process to keep it moving in a constructive way.....at other times, doubts and fears are part of old programs seeking a way to sabotage your efforts.

The professionals in any sport face this even after they are stars.....so often you will hear that they;

- " don't have the energy "
- " are not focused "
- " can't see the shot well today "
- " are in a slump"
- " are slow getting going"
- " are not locked in "
- " can rise or fall to the level of their competition "
- " did not stick to a game plan"
- " lost their confidence "
- " are not aggressive"

When you are very hot, you don't want to return to a wrong mental frame.....don't let this slip.....you want to keep the momentum going.....because you don't have that opportunity often.

This means that hot streaks occur once in a while.....and slumps occur once in a while, even though the player is knowledgeable of the required mental frame.....they have to work their way out of it.

Mental Etc Etc Etc

Personality differences have not been taken into account. Scientists have identified a gene that influences how impulsive, excitable, quick tempered and extravagant you are.....someday they will unravel the genetics of a personality and provide more direct help.

It is easy to say "get focused", but another to do it.....below are some mechanical devices that will help in focusing.

When called on to perform, many players slightly tighten up.....and without knowing it, shorten their breathing, and their blood pressure goes up.....when this occurs, the ability to focus is *restricted*.....and worse yet, they may become self conscious, which creates more tightening.....this is pent up energy that must be released, so your energy can be devoted to the matters at hand.....breathing is much more important than you would imagine.

Before an important game, take three deep breaths, tighten every muscle in your body, and release all tightness and breath, in one quick motion, like an explosion.....and visualize all of this leaving your body.....this will do wonders for focusing.....periodically during the game, repeat the deep breathing process.

Some research now suggests that music really does help you think better.....if listened to before certain tasks that involve high-level reasoning in space and time.....something to do with the brain process. A recent university study says, "by listening to music for a few minutes *beforehand*, you can actually prime your neural circuits and do the task better"....."this effect lasts only about 15 minutes"....."while the music can be of any style, it has to be clearly structured and non-repetitive", much like a Mozart Sonata or the strains of a classical guitar.....when it's your time to play, your brain will be refreshed.

Be reminded that a phone call, or some one saying hello, takes away from your concentration.....it may take a few innings to get back into focus.

Sharking

The definition of sharking is: *when a player does something to disturb, or distract his opponent*.....usually, when it is the opponents turn at the table.

It is like someone moving in a sight line, when the golfer is putting..... or someone making a noise, during a chess game.....this breaks a players concentration.....and several innings might pass before he can return to being totally involved in the game.....even a phone call can set him back a few innings.

Some players are notorious "sharkers".....these players should be horse-whipped in the village square.....the one I hate the most looks away from the table when it is your turn to shoot.....this guy ruins the entire ambiance of the match.....any sharking where the shooter can be distracted, is "gauche".

Once, during a tournament, I remember bending over a shot trying to concentrate on the object ball hit, and my opponent was doing his morning exercise in front of my line.....his arms and legs waving !

Another type of sharking, is when the game is nearing the end, and the shark strikes by starting an argument, " three innings ago, you said you made three billiards, and you only made two ! ".....with this type of ploy, the shark shuts the game down, trying to recall the inning, and also shuts down the opponents concentration at the same time.....ugh.....the guillotine for this person.

A parade of elephants could not disturb me if I am in the highest level of concentration, and sharking will not bother me either..... but at the lower levels of concentration, it's different.

For a healthy mental game

***look at the billiard shot with beauty
in mind, instead of winning or losing***

and be offensively aggressive

Chapter Nine

Equipment

Most billiard players are not in contact with the activity of the billiard world.....they are not part of a billiard association.....nor do they read billiard books or magazines.....they may be many years behind in knowing about current billiard equipment or how it's maintained.

Basically they are isolated within the confines of their own billiard room, playing the same way for the past 50 years.

Since then, this great billiard explosion has occurred, and offensive averages are high.....equipment is first-rate.....without this, a player is at a disadvantage.....his playing equipment may be good, but can't compare with the new heated tables that are kept in top condition.

This chapter goes into great detail on "cushions", and the current methods of maintaining equipment.....all designed to make more billiards.....this information will help the tournament player who has a difficult time adjusting to new cloth.

Being an observer of the billiard scene, it is apparent that *constantly checking* the run of the table, is required.....why use last weeks table characteristics ?.....this is especially true during the first few weeks of breaking in a new cushion cloth, or when using a new set of balls.....the top players check the run of the table more often, since humidity and air-conditioning make a difference.

When you absorb what a well maintained table can do for billiard production, maybe you will join in a revolution to change your billiard world.

The Cushion

Brute

The manner in which cushion cloth is installed, makes a huge difference in billiard production.....when watching world class play, so often a billiard is made that had the cue ball going very long.....this could not be made on my Wilhelmina.....the video play was on a Wilhelmina table.....how could the cue ball get so long ?

The table mechanics in the USA were lacking the information on how to cover tables.....European tables played differently.

This all changed in the USA.....just prior to **Sang Lee's** 1994 tournament, he imported a European table mechanic to recover the tables properly.....two USA mechanics were present.

The cloth around the cushion was wrapped tightly so as to slightly depress the rubber nose.....maybe 2 to 3 mm.....and the bed cloth stretched to an absolute maximum....the difference in play was impressive.....the table became faster, it seemed the cue ball caromed off the cushion without losing speed.....it became clear that something was indeed different.....more difficult to play on.....a players data had to be adjusted.....the simple natural became complicated, often missing by a diamond.....cue ball speed became very critical.....when the cue ball speed increased, the angles became longer.....I soon realized how the world class player makes those very long angles.....ones the ordinary player would not consider.

After a few rails, a significant amount of spin remained on the cue ball, which seems to automatically present itself, even though it may have not been desired.....cue ball english, off the first cushion was different, and provided more english than ever before.....back-ups became sharper.

More Cushion

Slide was another big difference.....after a couple days of play, the table settled down, and slide became a bit shorter.....a few months later, shorter yet, until the rail cloth needed changing..

To understand the importance of this slide, an example is shown on drawing 73.....in this example, path "B" uses a new cue ball, Simonis 300 cloth, cushion cloth installed as mentioned above.....with cue ball english, stroke, etc, all being maximum, with seven rail speed.

Path "A" is the same as above, except the cushion cloth is installed without depressing the rubber.

Notice the difference.....longer angles are now available.....this "new" table allows the player to make more billiards.

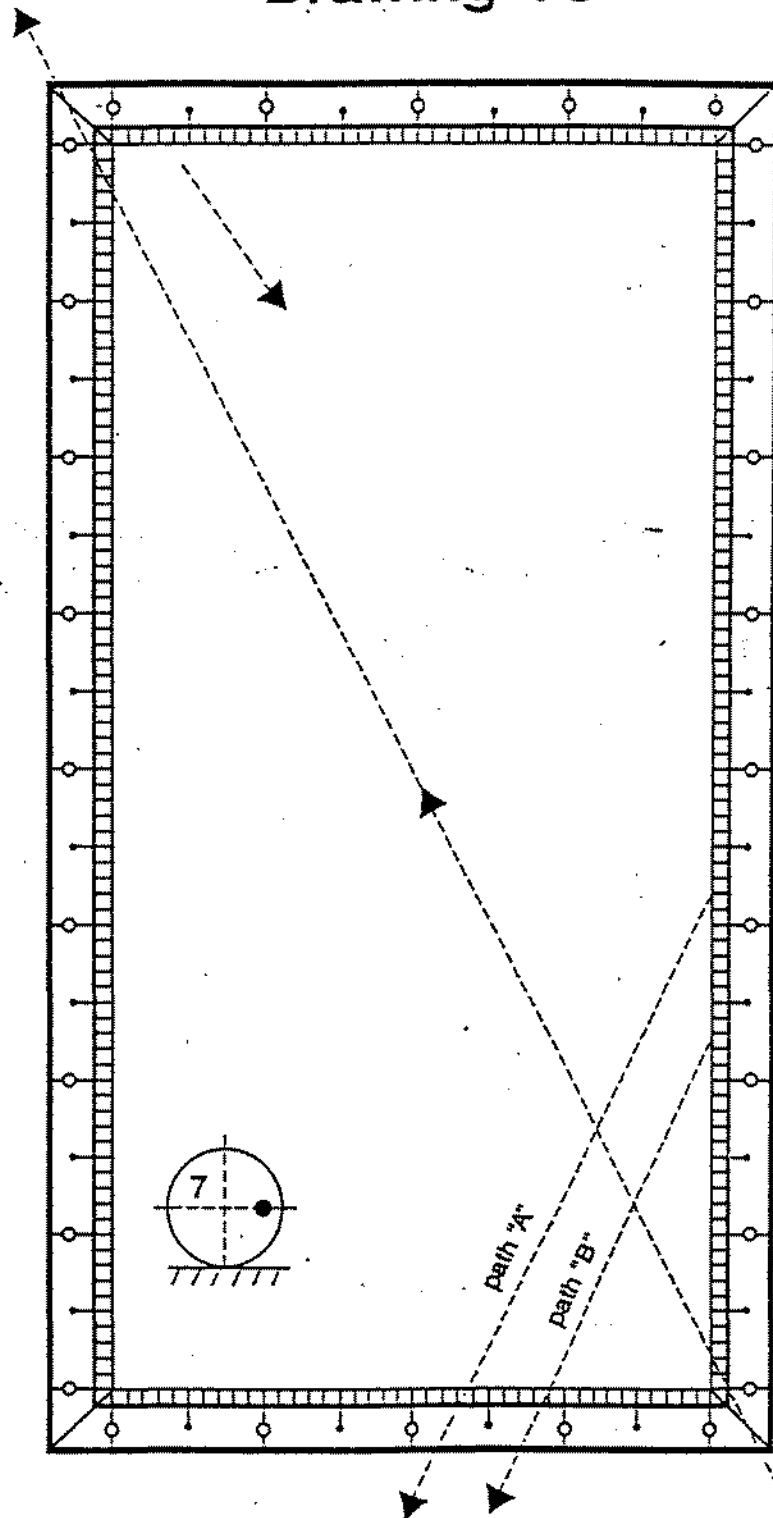
The first 5 to 6 hours of play, on new cloth, has the cue ball wildly caroming at unpredictable angles.....until the cloth is broken in, don't go crazy trying to calculate anything.

Please note that a "new set of balls" is used.....data regarding this will be addressed under "*The Ball*" section, later in this book.

This entire section of "*The Cushion*" is long winded.....because so much of the billiard world is not informed about this subjectand making more billiards, is the name of the game.

Now "feel" is changed.....players must re-learn the table again.....sad, but true.....one of the USA's best players, when asked about European tables, lamented that it will take years for him to get familiar with these tables.....while the Europeans have enjoyed these conditions for many years.

Drawing 73



***The only time to think about the second object ball,
is when you are lining up the shot and getting your aim***

More Cushion Etc

World class 3-cushion tournaments have the best of equipment and this is a world standard for championship play.....when tournament play begins, the players readily remember what these tables are like.....in their first game or so, they are never too far away from the right feeling and the needed adjustments.

During the first day of the contest, the table starts playing shorter and changes slightly every few hours.....the world class player is quite familiar with this characteristic and constantly adjusts.....not only does the cushion cloth shorten, but the new balls change...constantly shorter.

Players who are not on the professional tour are at an enormous disadvantage when confronted with this.....after all, how often do they play with these conditions.....one day a year ?.....their only choice is to hop on the tour, without the experience of having played on top tables.

When the tournament is over, the Simonis 300 cushion cloth becomes shorter over the next few months, until a stable slide is established.....it then becomes unsuitable for tournament playcushion cloth should be changed at least twice a year.

Drawing 74 reveals the difference in running lines when variables are introduced.....again, we are examining the long slide.

Paths A, B, C & D indicate how cushion wear changes the slide angle. All examples have Simonis 300 cushion cloth, with the cushion edge depressed.....and a new set of balls.

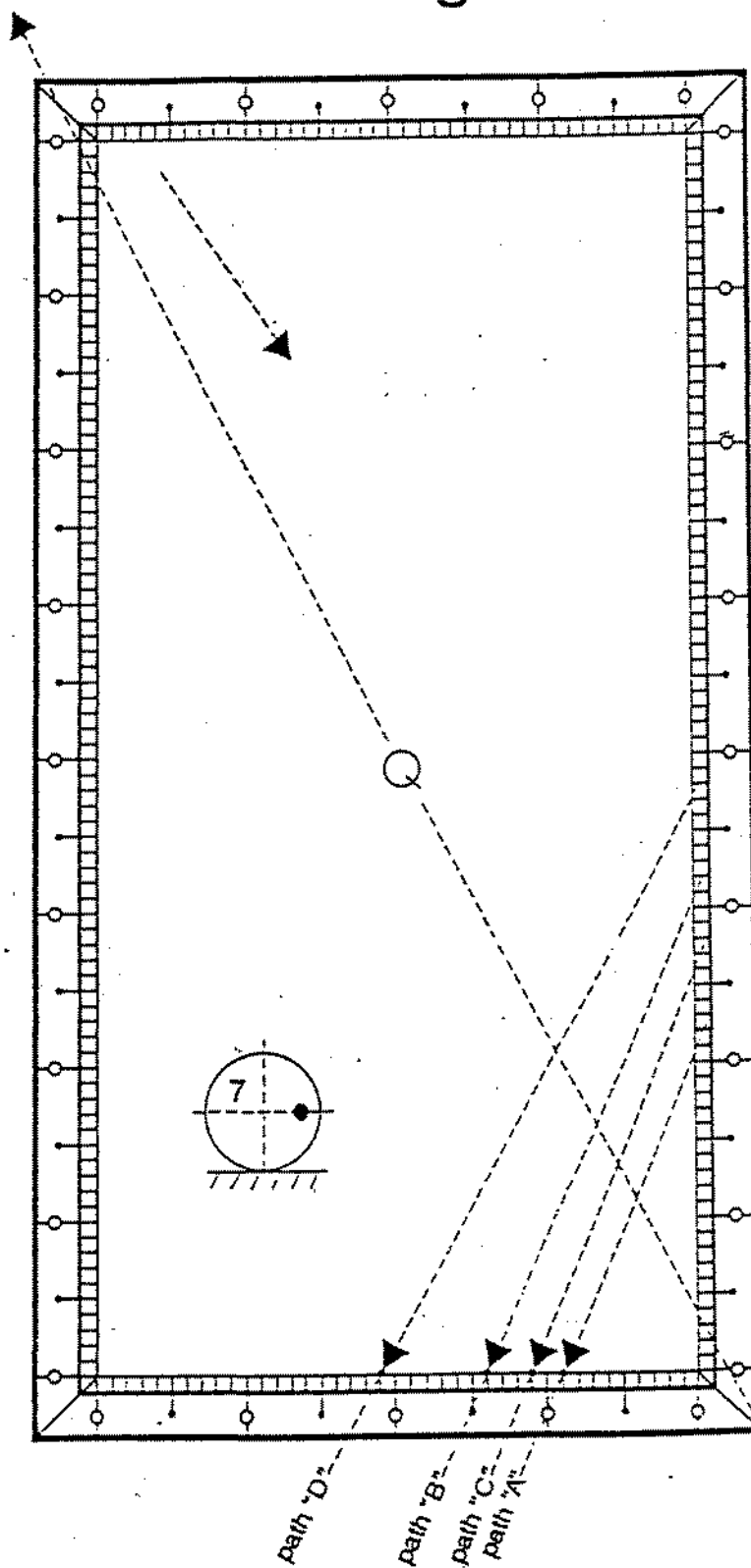
Path A is from a new, never used, cushion cloth.

Path C is from a cushion cloth that has one day of tournament play.

Path B is from a cushion cloth that has been used for one week.

Path D is from an older cushion cloth.

Drawing 74



More Cushion Etc Etc

The average European tournament player, in every day play, prefers a longer slide than the *used* 300 cloth, so a *Simonis 585* cushion cloth is substituted. This cloth does not have the slide of the "new 300", but this durable 585 rail cloth remains "long" for a longer period of time.....thus allowing for lower costs in maintaining the table.

After all, you can't change the "300" cushion cloth every two months, as it would be too costly.....this way, the 585 rail cloth satisfies the average tournament player.

Richard Bitalis, playing in his home room in Cannes, changed the rail cloth on a regular basis, but not the bed cloth.....he also kept slide on the balls.....new balls were expensive.....this provided him with playing conditions that were similar to world class tournament play, without costing the room owner a bunch of money.

In the USA, too often when the rail cloth gets worn, or gummy from the wrong ball wax.....the slide is gone.....the room owner does not realize the importance of slide.....and most players do not want to adjust to proper playing conditions, since winning a game is more important than game excellence.

Drawing 74 shows the problems the average player faces when playing conditions are different than he is used to. So often, USA tables have Path "A", or path "C" as the playing conditions, and the average contestant has been playing on tables where the conditions are similar to path "D".....or worse.....there is no way he can play his normal game.....the experienced top player adapts better to this.

During *Sang Lee's* 1994 New York tournament, the tables played like path "A", maybe longer, because of his ball treatment. Everybody, including the World class players, struggled for a couple of days until the table settled down.....in the prelims, all complained that whatever ball polish *Sang Lee* was using, made the balls slide more than they were used to.

Cushion End

After a couple of days the table shortened slightly.....it then became perfect for top level play....and established new records for billiard play.....too many top USA players did not make the finals due to this long slide.....which in the first two days, had the break shot being hit with dead ball english..

During *Sang Lee's* 1995 New York tournament, the table conditions were changed.....new cloth was not installed.....and ball treatment was a bit different.....this is not to say that the playing conditions were not OK.....they were excellent.....but without the slide in the 1994 tournament.....the general USA average for the 1995 affair was better than ever.

Oddly enough, too many "good room owners" will let the cushion edge get worn and dirty....."after all, my room players haven't complained!".....or, "it's good enough".

There are many room owners that still have tables with cushions that lost their elasticity 70 years ago.....these cushions have been around much too long.....it is time the room owner be taken into the street, read his rights, and shot at sunrise.

If we are to breed players that can compete internationally, the least we can do is have proper table conditions.....the average room player will eventually get accustomed to this....the owner should replace the rail cloth two times a year, provide players with vacuum cleaners, ball polishers, and table covers.....which has all costs totaling about 20 cents per hour.....a much needed player revolt may provide an aura of class billiards.

The Ball

As an observer of the billiard scene, it is apparent that much has been done to make the table as fast and as long as possible, with the sole purpose of making more billiards.....why hasn't more importance been given to the study of billiard ball care ?.....is it possible that this has been overlooked for the past decade ?

The world class players practicing in their home rooms will apply their potion to have the balls resemble new balls at tournament time.....the problem with most treatment products is they wear off quickly, maybe after a 40 point game.....it also deposits a residue on the edge of the cushion and on the cue tip.....I have observed ugly rail edges in some of the best rooms in the USA.....and too many miscues.

The room owners of Holland only admit to cleaning the balls with a damp cloth and buffing dry.....whatever they use is not public knowledge.....their table rail edge is kept perfect.

I have experimented with a few liquids and have found little that will stand the rigors of a 60 point game.....but the hunt for something of value continued.....this led me to a chance happening.

My local watering hole in Cocoa Beach, Florida, is a gathering place for NASA space center personnel, and they often converse about the activities of their work. On one occasion they mentioned the liquid that is used on the shuttle's nose cone to reduce friction.....naturally, this coating was obtained and applied to billiard balls.

Using mineral spirits, the older balls were stripped of all previous coatings.....then a few coats of this material was applied, and the balls became similar to new balls.....like fresh out of the box.....they traveled a longer distance and had the slide of a new ball, with no residue on the leather tip or the cushion edge. This coating actually makes a ball like new.

Ball Etc

The liquid coating was named "New Ball", and its maiden appearance was in a 1995 tournament in Boca Raton Florida many top players were present.....the Sogard tables were covered with Simonis 300.....cushions covered properly.....balls were top of the line Arimith balls. Before the tournament, the room owner was introduced to the "New Ball" liquid coating.....he was impressed, but was reluctant to use anything new, even though he was self conscious about his tables playing short. The first day of the contest had the angles slightly shortening.....the new balls, which had many factory coats of silicone, were being coated with the usual wax between games.....halfway through the second day, the balls had shortened quite a bit, but the top players knew how to handle this.....they were very aware that this occurs.

The room owner did not like the short angles that soon, so at noon of the second day, he used this "New Ball" coating.....immediately, the billiard balls reverted to new ball conditions, which produced a problem for a few top players.....they were expecting a gradual shortening of billiard play and did not think that the longer ball slide would reappear.....*Carlos Hallon* never did recover, missing many billiards by a few millimeters.....*Sang Lee* adjusted quickly to thisthe room owner loved it, his tables now played respectably long.

These balls shortened as play went on and had to be coated after 40 points.....which means that it is mandatory that the student learns how to adjust to this constant ball change.....here is where "feel" plays an important part.

Billiard balls should play the same wherever the game is played..... meanwhile, allow a 3-cushion player to use his own ball.....If the balls are heated, they will travel for a longer distance....maybe they should be in a cradle and placed on the heated table.

"New Ball" coating can be obtained from *The Billiard Library*, fax number 310-436-8817.....telephone number 310-437-5413.

Chapter Ten

Misc.

I was a referee in a *Raymond Ceulemans* exhibition in 1978, in which he averaged a whopping 1.6 against a field of the best Chicago players.....after this, he made himself available for questions about any aspect of the game.....he emphasized that all the power he needed, he got from his hand.

His generosity in offering advice was always present.....but the data was too much for that small band of hardy fanatics to absorb.....not realizing the importance of what he was saying.

It would be nice if information came from a world class teacher, along with coaching.....presently, in the USA, we only have *Sang Lee*.

Meanwhile, if a player makes a study of this game.....takes instruction from our past champions and with dedication, he could contend.....some of our top players are good teachers.

With tournament exposure against top level play, he could become dangerous.....who knows after that.....look at *Efren Reyes*, he might be the world's best balkline player, even though his forte is pocket billiards.....ten years ago, his 3-cushion game was almost at USA championship level.

This chapter touches on a couple of areas.....needed coaching world-wide.....and a great idea on obtaining sponsors to provide the prize money, to attract the best....and to elevate this game.

A Survey

When up and coming USA players *Sonny Cho* and *Carlos Hallon* were asked, "what do you think is the most important single item for your future advancement ?".....both replied, " playing in world class competition ".

When I asked *Mazin Shooni* the same question, he said "stroke knowledge".....which translated, means instruction.

This comes from players averaging above 1.00, and looking to improve their game.....and it makes sense.....if you are lucky enough to play with high caliber players, it is obvious that your offensive average will improve.....you will see shots played properly, and this will rub off.....it will be easier to see when a jab shot is employed, and easier to see the care these players employ, or how they select shots, so position is better.....if something needs clarification, discuss it with your opponent after the game.

During the past 20 years, *Raymond Cuelemanns* paved the way for world class billiard players.....because of his knowledge top international players were able to advance.....and today's high averages occurred.

Coaching

The "World Report 3-Cushion" magazine had an interesting editorial on coaching recently....here's an altered version of it.

....

Most sports have a trainer, or a coach at their establishments or clubs, who tries to teach members the finer points of the game.....not in billiards though.....the average room player has his weekly game and that's about it. He might get some minor tips or instructions by fellow members.

Fanatics who want to invest in their game, will arrange for lessons..... those who don't have the required money will muddle along, and their game will not improve at all. Since the game was organized some 80 to 90 years ago, hardly anything has changed.....when do we wake up ?

If clubs, or billiard rooms would recruit a coach or trainer, as in other sports, results would follow and concerned players would start to enjoy their game.....the less talented player will be able to make progress from say a .300 to .500 average, or from a .500 to a .800 averagenot to mention the tremendous kick one gets by passing the 1.00 barrier.

The billiards community has been taken for granted too long, and nobody has ever given attention to the technical aspects of this game as well as the mental aspects.....we must change the game so it is more like a sport....which would create interest in all levels.

It would be wonderful if the average players would not only play their normal games, but would have the opportunity to be taught each week.....too many years of neglect have gone by.....maybe now, we can change all this.

USA Tournament Formats

When the international tournament formats went to 15 point games, *Raymond Ceulemans* was at a loss....he was the best, why should he have to endure 15 point games ?.....well, this created interest, and the game did much better.....audiences became larger.

Our formats have not changed in 40 years.....we still have tournament formats that smack of the 1950's.....it is common to see a weekend tournament where the player is expected to play 280 points on Friday night and Saturday.....if he makes the finals, 280 points on Sunday. His first game may be at 9:00 am and his last, at midnight.....the quality of billiard expertise suffers. Who wants to muster up the required concentration for this long ordeal ?.....then we have the player that works on Saturday or evenings.....or has family matters pending, or maybe other desires.....also there is the older player who cannot endure these marathons.....all of the above has to do with tournament interest. When the fathers of this craziness are approached for some accountability, they appear open minded, innocent and quizzical, but below that facade, lurks billiard insanity, and nothing ever changes. It is obvious that this type of attitude is slanted towards ancient thinking.....with the prize money going to the same players, the regulars, the good old boys.....if change is to occur, more interest has to be generated for the majority of players.

There are not enough tournaments.....and for the few that occur, the entry fee is too large.....as of this writing, we do not have two man, or four man team tournaments.....or senior contests.....etc, etc.

Encouraging a two person entry would alleviate some of the above problems.....15 point tournament games are rarely played in this country.

Probably the greatest injustice done to our USA billiard world, is not to maintain rankings.....we may be the only country to do this. For the present governing bodies to *ignore publishing* of how one player rates against the others, is unforgivable.

Fifty Innings

Late last year, a new type of competition called the *ladder club* began in Chicago.....and created plenty of excitement.....this simple format has the player in a 50 inning game.....after three games his average is determined, then he is ranked.

Once a player is ranked, he can improve his standing by challenging one of the next two players that rank directly above him.

If the lower ranked player wins a match, the players exchange positions on the ladder (ranking)....when the higher player wins, they retain their previous ranking.....the difference between two players ratings, is the handicap that the lower player receives in a match.

Forty players signed up for the first tournament, and it was extremely popular.....presently, there's a waiting list for the next set of matchesthis is taking place at *Chris's billiards*.

Tournaments are scheduled continuously throughout the year.....and the formats vary.....each player schedules his own matches, usually by phone, so he can play when it's convenient.

If you wish to know more about this format, write to Chicagoan *Frank Bondzinski*, a veteran 3-cushion player.....his address is 1301 Ironwood Drive, Mount Prospect, Ill. 60056-1441.

The official rules are established, and here are some of the features; ladder matches take precedence over open play.....the player's scores are constantly averaged and multiplied by 80% to arrive at a ranking.....a limit of 40 players was established for four Verhoevens tables.....20 matches per week was normal.

All challenges to be accepted and played within two weeks, or else it's a forfeit.....tournament fee is \$20.00.....each match costs the winner \$2.00, and the loser pays the time bill.....the ladder club has officers and a committee to settle differences.....prize money too !.

Open letter to the billiard player

Please consider this a plea towards billiard players to cough up some money.....not now of course, but when you pass away. You are going to leave this world and you will leave sums of money to the heirs.....after some years, it is possible that your donation will not be remembered.....this would be unfortunate.

Your great-grand children may not know that you ever existed and most likely will insist they worked hard for their money.....it is likely that within 50 years your name will not be a household word.....it's sad, but probable.....unless you are determined, you will leave your assets to these relatives anyway.....when you do, you may think that all's well, but there will be some unhappy people who got too little.....they will surely dislike you.

But I have a plan for you to have your name in lights for many years, much like King Tut, and still satisfy your relatives. First of all, your kin do not know how much money they will get.....secondly, if you take 20% of your estate and set it aside for a great cause, they will never miss it.....they will be proud that you supported a cause that was dear to your heart.....one of the most compelling involvements that mankind has invented, and the one you enjoyed for so many yearsthe 3-cushion billiard game.

Here's how it works.....upon your demise, leave 20% of your assets in the hands of a Swiss banker, with carefully written directions of how your money is to be invested, and how the yearly interest is to go into *your tournament fund*.....take inflation into accountthose of you that can leave \$100,000, can probably put \$8000 a year, (8% net interest) into the coffers.

Establish this tournament every five years in your name.....your total contribution will be about \$50,000.....this, along with entry fees, can establish a \$75,000 tournament.....largest ever.

More Letter

The national billiard fathers can oversee the contests.....if enough persons answer this call, all kinds of things can happen.

You could establish a tournament that is named after you.....like the;
Carl Liebovich Open.....*Dan Segal* Grand Prix.....*Chris Crisman*
Grand Slam.....*Sid Banner* Two Man Team Open.....*Ray Mortell*
Women's Open.....*John Ringling North* National Handicap
Meet.....*Rich Schraeger* Chicago Open.....*Gerry Kolb* Three-
Cushion Meet.....*Vic Kastil* Pro-Pool Player Open*Leonard*
Redlich Pro-Am.....*Don Sperber* Classic.....*Jerry Karsh* National
Four Man Team Title.....*Hernando Pineras* Miami-Pan-American.

You will draw many USA pool players that can handle a cue.....we
have a zillion great pool players that earn very little.....having this
caliber of cuemanship compete in 3-cushion tournaments, is mind
boggling.....don't forget we have some upcoming good billiard
players on the scene.....if only both could compete for some
worthwhile money.....you alone, could make a difference.....by the
way, let's not have repeat prize winners.

Several persons contributing could make a huge difference, such as
the person that could leave \$300,000, or a million.....this infusion of
money could move our country's billiard game into high gear.....the
\$30,000 gift would provide a sizeable prize every five years.

Best of all, a new level of USA billiard activity will be established for
many future years. a nice base to build on.....this entire appeal can
apply anywhere in the world.....such as the USA, Greece, Turkey,
Korea, Argentina, Mexico, or anywhere billiards is loved.

You are going to pass through this world only once.. Let's see how long
you can get your name to be a household word, and elevate this
wonderful billiard game at the same time.....just phone your attorney,
and sign your name.....easy, no ?.....please be reminded that this is
probably the area closest to your heart.....the one with most
beauty.....and one that could use some help.

Iron Willie

In the state of Michigan, or Florida, there is a robot named "*Iron Willie*".....he is used for finding many answers to age old problems concerning the pool game.....one of his experiments dealt with measuring cue ball deflection/curve.....the results have cue makers pumping out cue shafts, supposedly with less deflection.

Some day, "Iron Willie" will experiment with conditions the carom billiard world faces.....that of fast cloth, fast cushions, big heavy cue balls, all with lots of slide.....when that occurs, more answers will be available.

Speed photography, showing deflection/curve, with various speeds, would help greatly....then the *distances* can be defined.

Dennis Dieckman is an expert in this area.....if you want a custom cue stick that takes this into account, see him.....obtain *The First National Billiard Exchange* magazine to read his first rate articles on cue making.....along with being a noted cue maker, he also has a school that teaches the art of cue making, which is located at his laboratory.....don't forget his famous video tapes on cuemaking. You can reach *Dennis* at 313-428-1161.

Misc

Due to the upcoming Olympics, the cue games are on the brink of further expansion.....soon the cue games may be included, and this will increase its popularity.....my guess is the European community will not allow the USA pool players to dominate the games, and three cushion billiards will make its way into Olympic competition.

Meanwhile getting our act together seems hopeless.....but our great champion **Sang Lee**, is busy teaching some upcoming players how to improve, and presently, some accompany him to international contests. Because of his efforts, we will field a competent USA team, in spite of our small billiard population.

The world's top ten players currently have averages between 1.34 and 1.59.....recent world cup rankings have the balance of the top 20 players between .976 to 1.34.

Other 1996 *team* tournament averages....Spain 1.02, Portugal .910, Mexico 1.077, Columbia .954, Nicaragua .806, Costa Rica .794, Venezuela .605, Uruguay .696, Chile .651, Bolivia .534, Dutch Junior tournament average .742, Austria Seniors top average .511 and BWA World Cup in Austria .856.

Gerard Klinkert, a noted Dutch billiard teacher and coach, has 200 students at all times.....yet our best players may give only ten lessons a year.....have our students fallen into a deep sleep ?

Thanks to **Gerard**, the "Billiard Atlas II" is translated into the Dutch language.

On the subject of safe play, **Semih Sayginer** states, " why not ? , we do in Turkey ".

Over a beer, a world cup player was overheard saying, " if **Raymond Ceulemans** did not play safe, he would still be world champion ".

Opposite 3

Book endings like to go out with a flourish, and offering this system fits nicely here.....if there was only one system to teach a beginner, this would be it.

This remarkable method was first called to my attention during a *New Wave* billiard tournament in Miami, Florida**Robert Byrne**, asked me if I had ever heard of the *Opposite Three System*.....until he sketched it out, I realized that this was unknown to me.....he further mentioned that it came from *Ray Kilgore*, 1953 world 3-cushion champion.

In order to check it out, we drove wildly to **Bill Maloney's Corner Pocket** room in Fort Lauderdale.....after a preliminary check, it appeared that **Byrne** had indeed revived a valuable billiard system.

Byrne, the noted author, decided to print this in the next issue of the *Billiards Digest*, which was the March 1996 issue....thus offering it to the billiard world.....and to the "Billiard Atlas III".

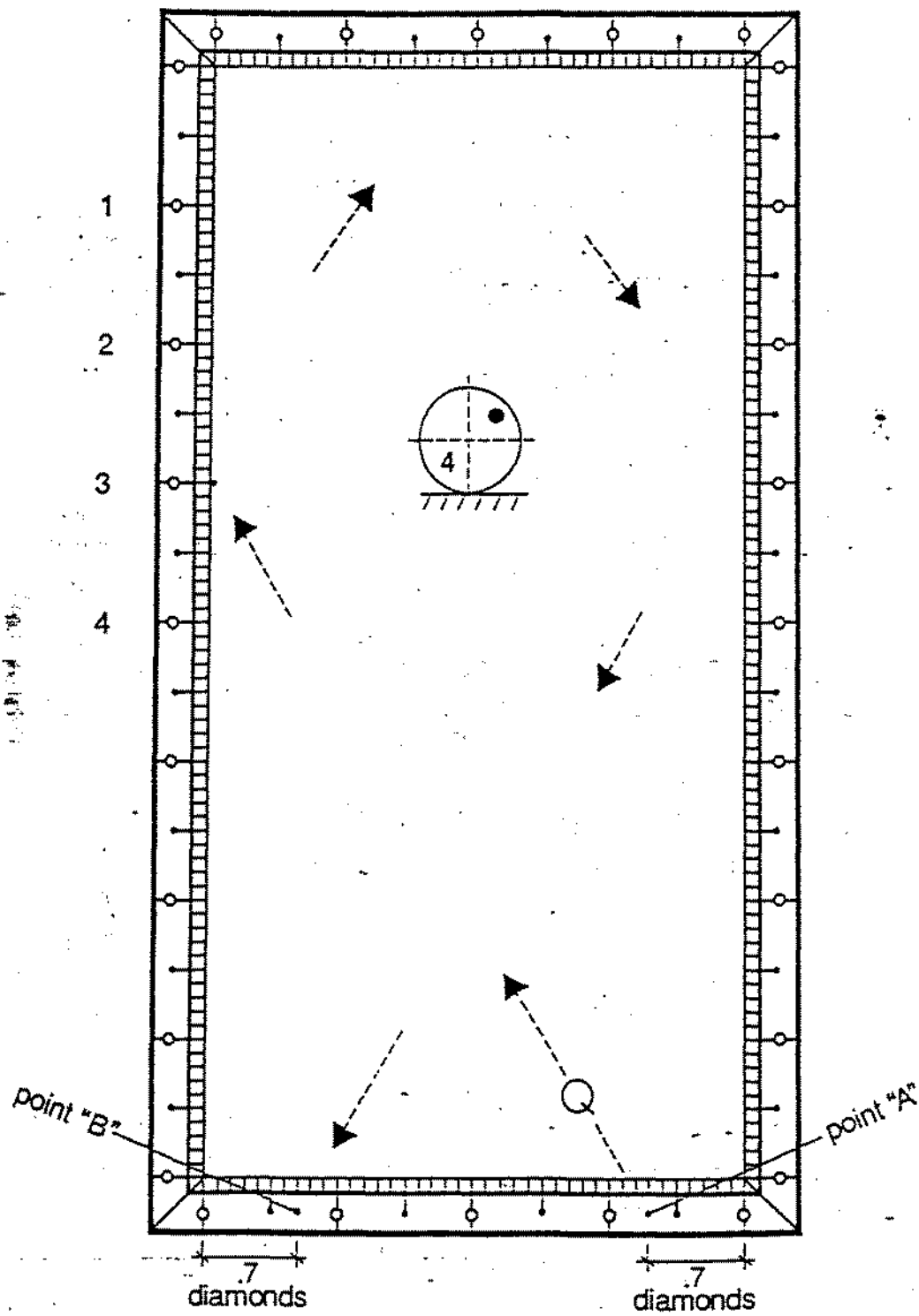
This system proposes that a cue ball aimed at the rail edge at diamond 3, will have a mirror image hit point of the cue ball origin.

Drawing 75 has the cue ball aimed at the rail edge of diamond 3the cue ball origin is point A.....the 4th rail hit point is point B, which is the mirror image of point A.....note that points A & B have the same distance to their respective corners, like a mirror.

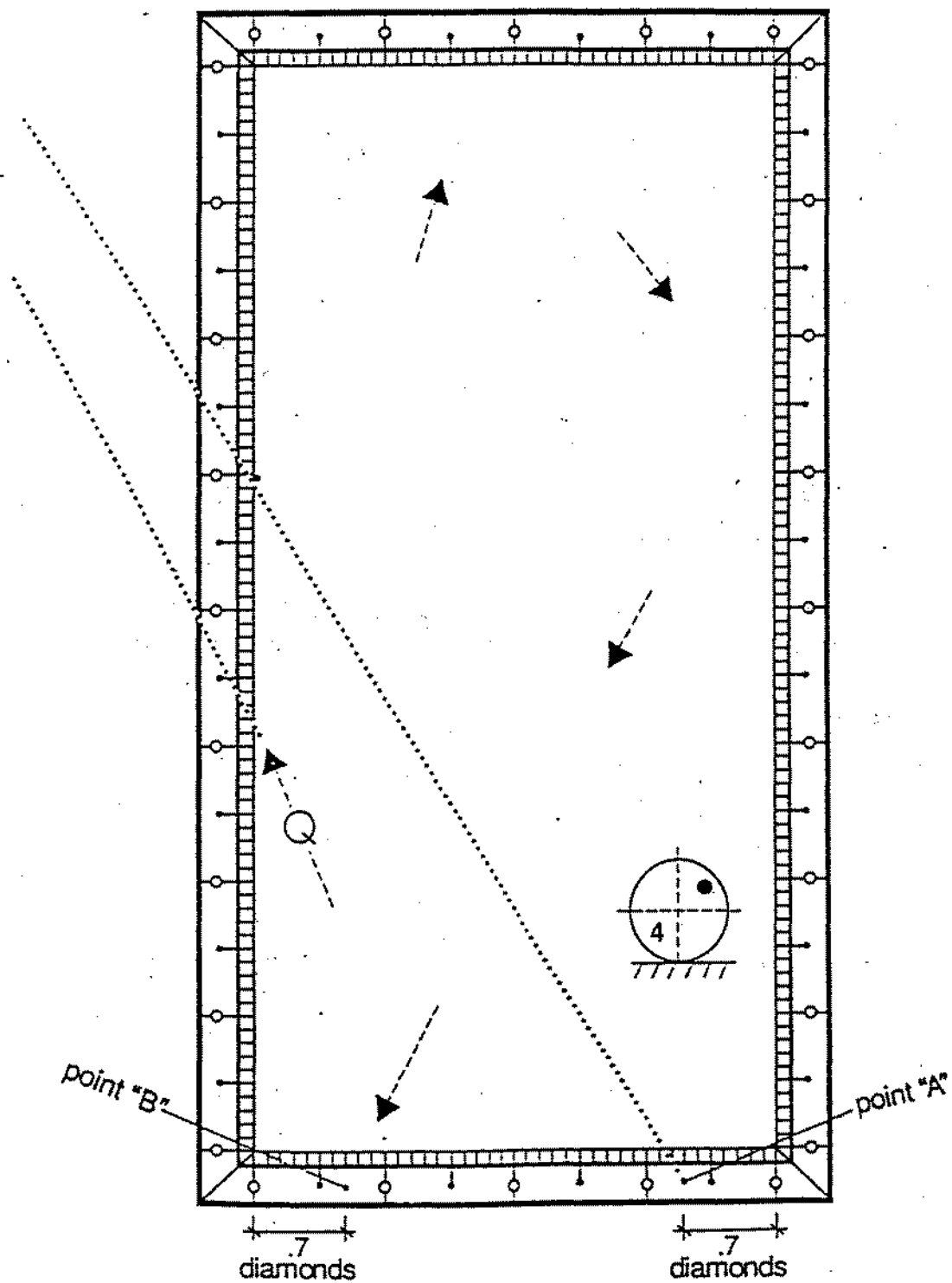
Drawing 76 has the cue ball located badly. You desire to hit point B, so find the mirror image of point B (or point A).....sight a line from point A, through the rail edge at diamond 3, to a spot on the wall about 7 feet past the table (a departure from **Kilgore's** method).

Aim your cue ball at the spot on the wall, to hit point B.....employ a level cue, two tips of high running english, four rail speed and a full follow through stroke.

Drawing 75



← to a spot on the wall
7' beyond the table



More Opposite 3

The *Opposite Three System* can also have cue ball origins from the long rail.....drawing 77 indicates this by having point A as the cue ball origin.....the mirror image of point A, is point B.....which is the desired 4th rail hit point.

From point A, aim at the rail edge at diamond 3, and the cue ball will arrive at point B.

Drawing 78 has the cue ball located badly.....yet, the desired hit point is still point B.....sight a line from point A, through the rail edge at diamond 3, to a spot on the wall about 6 feet past the table.....to arrive at point B, aim your cue ball at the spot on the wall.....mark the hit point on the first rail.

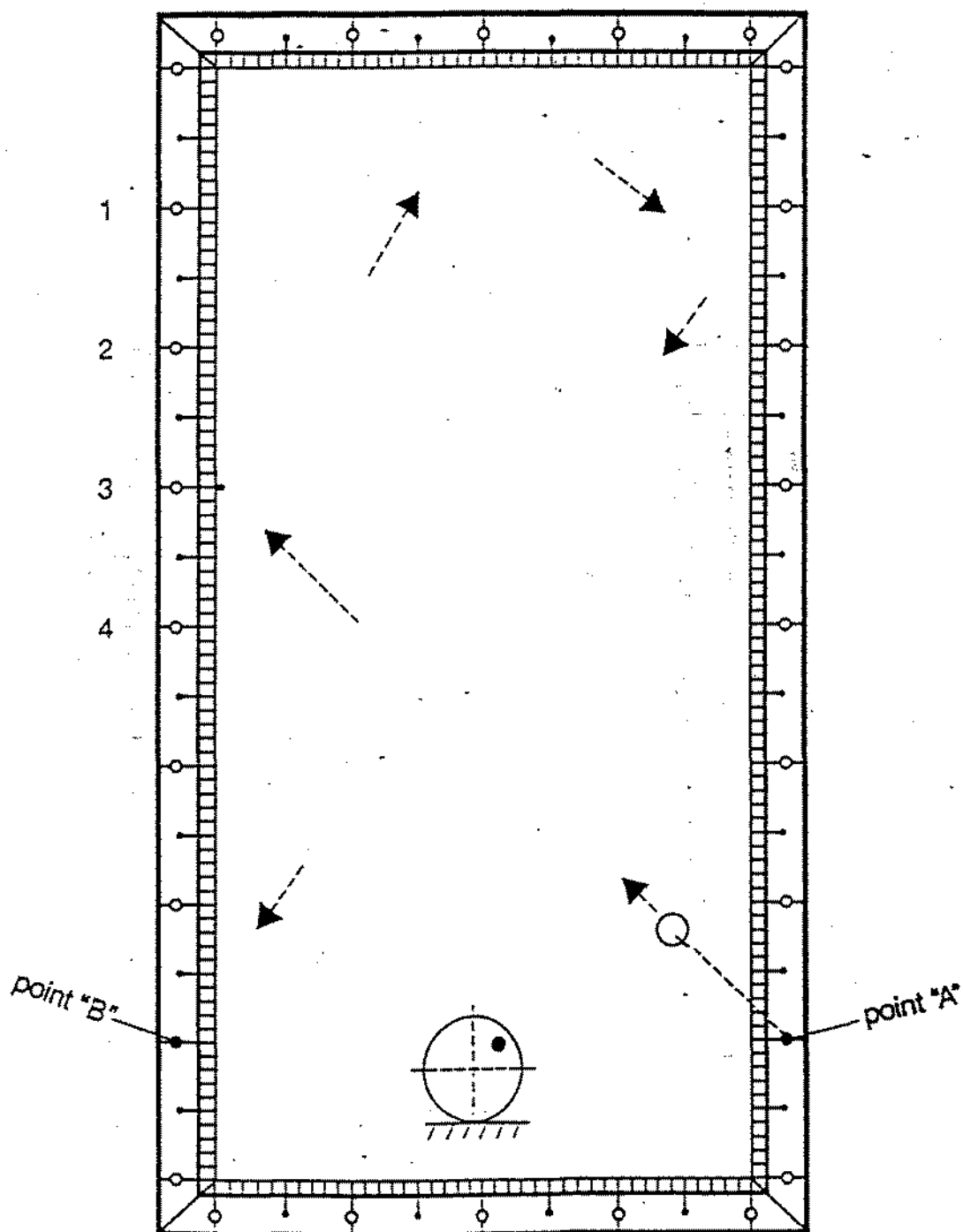
Try this system from a cue ball origin point on the table (not a rail edge) such as point C.....find the mirror image point of point C, or point D.....aim the cue ball at rail edge of diamond 3 and see if the cue ball arrives at point D (a good way to find the allowance). Use the spot on the wall principle when the cue ball is not located at point C.

When caroming off an object ball, to a spot on the wall, the cue ball english has to be adjusted, or slightly adjust the marked first rail hit point. This adjustment varies, because of cue ball curve, or cue ball english that might have too much spin.....or reduced cue ball english that is caused by striking an object ball.

The distance to a spot on the wall, beyond the table, has to be fairly accurate.....this is measured by using the same distance as between the first rail hit point and the cue ball origin rail point...this distance can be between 6 and 13 feet.....odd as this may seem, this system is more accurate when the angle is longer.....so try using a 5 rail shot, instead of a 3 rail shot.

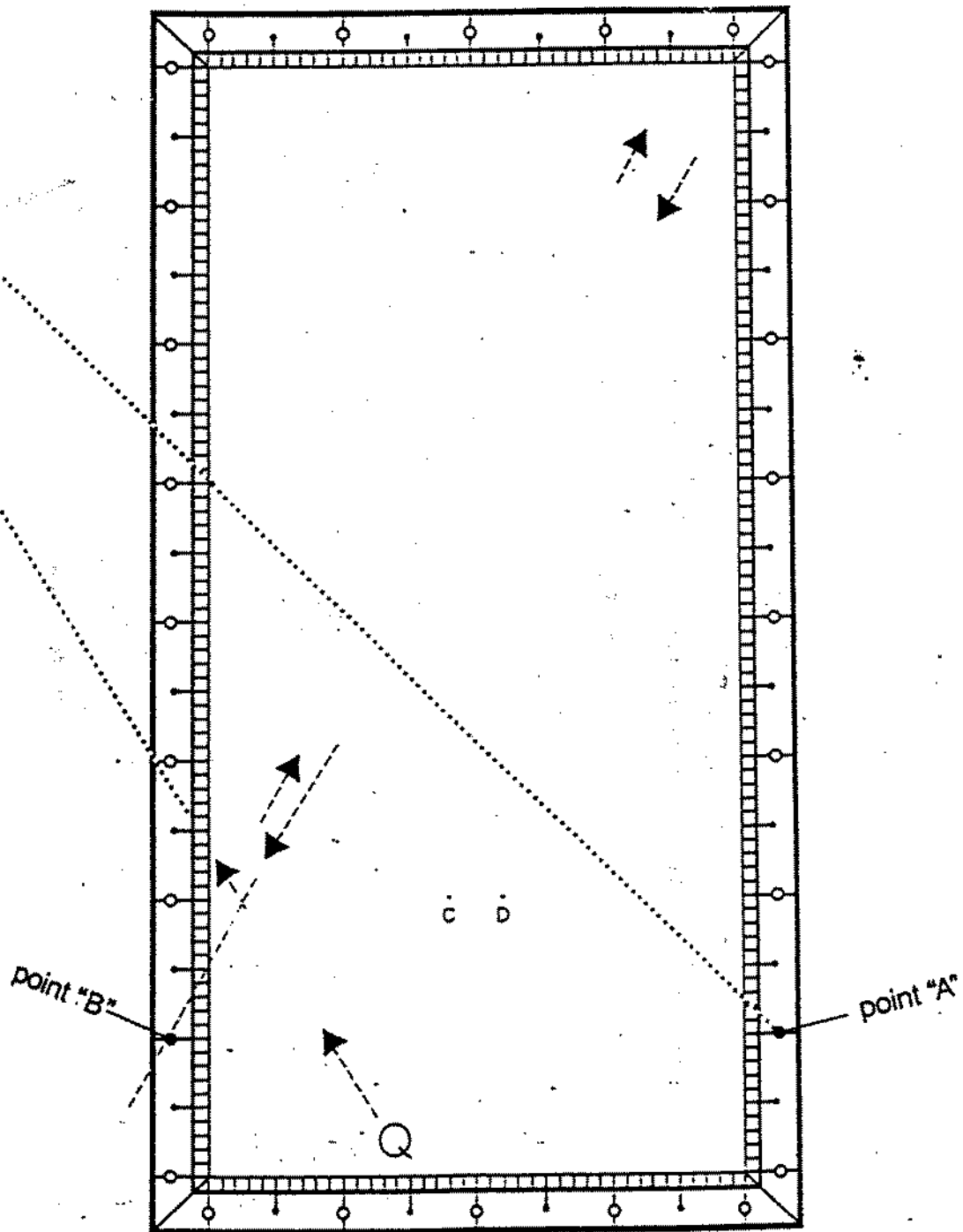
Table slide makes a difference, so check out your table and adjust....
.....my table has me using two tips of running english.

Drawing 77



Drawing 78

to a spot on the wall
6' beyond the table



Authors Note

This "Billiard Atlas III" contains some terrific material.....I only wish this information was available 50 years ago.

Usually techniques take a back seat to systems, but this book has some outstanding ones.....the *Dive Back* and *Frozen Object Ball* techniques seem to come up constantly.....adding the *Spread 2.8* and *Spread 1.4* techniques to my repertoire, made certain difficult shots much easier.

Knowing how speed affects *cue side movement*, was first-rate..... this along with the *Magic Cure* and the *Mental Game* made me realize what I had missed by not knowing the fundamentals.

How often have you heard a top player admit to using only *feel* ?..... my suspicion is that the very important area of *knowledge* was not mentioned.....after all, how do you use *feel* successfully when you lack *knowledge* ?.....it is impossible to handle kisses and position if you don't know the running lines ?

How about first learning the *fundamentals*.....then study *systems and techniques* to learn how to make billiards and calculate the running lines.....and while practicing all of this, employ *feel* ?

In the past, I have hedged on this subject.....as of this writing, my opinion is that *feel* is only as good as the players *knowledge*.

To illustrate this point, your attention is called to the *Opposite Three* system.....can you imagine how different a players game would be if this system was known when he first started playing ?.....the same applies to the information in this book along with the past "Atlas" books.....it would have changed his progress dramatically.

Incidentally, it's never too late to start.

Index

Author's Note 179
 Ball 166, 167
 Ball Side Movement 112, 113
 Basic Diamond System 109, 110
 Chapters 1, 31, 59, 71, 97, 117,
 135, 149, 157, 169
 Coaching 171
 Cue Align 111
 Cushions 158 thru 165
 Equipment 157 thru 167
 Fifty Innings 173
 Formats 172, 173
 Forward XI
 Fundamentals 135 thru 147
 Great Advice 7, 11, 19, 25, 41, 63, 79
 85, 133, 137, 155, 161
 Iron Willie 176
 Introduction VIII, IX
 Long Angle 1 thru 29, 158, 160
 Mental Game 149 thru 154
 Misc 169 thru 177
 Magic Cure 132, 139
 Open Letter 174, 175
 Position 146
 Rhythm 140, 141
 Stroke 138, 139
 Stroke Styles 147
 Survey 170
 Theory 144, 145
 Wrist 142, 143

Systems and Techniques:

Across The Table 31, 57
 Ball 124, 127, 128
 Bank Tickle 28, 29
 Blue Moon 85 thru 95
 Dive Back 36, 37
 Easy Across 32 thru 36
 End Rail 71 thru 95
 Equal Angle 54, 55
 Florida Back Up 20 thru 24
 Frozen Object Ball 64 thru 69
 Frozen Short 122, 123
 Joey's 124, 126, 130, 132
 Kirikaeshi 60, 61, 62, 118, 120
 Lucky Five 12 thru 18, 118, 121
 Lucky Seven 124, 129
 Max Across 46 thru 49
 Mirror Mirror 104, 105
 Miss-A-kiss-A-Day 98, 99
 Opposite Three 178 thru 183
 Parallel Across 52, 53
 Paralleling 102, 103
 Rising Sun 124, 125
 Sid's Cousin 26, 27
 Spot On The Wall 106, 108
 Spread 2.8 38, 39, 40
 Spread 1.4 42 thru 45
 Toyko Connection 72 thru 87
 Triangulate 50, 51
 Wow 56, 57, 100, 101

Credits

Banner, Sid 175
 Billiard Digest 178 thru 183
 Bitalis, Richard 36, 147, 164
 Blomdahl, Torborn 147
 Bondzinski, Frank 173
 Byrne, Robert 177 thru 183
 Cho, Sonny 170
 Chrisman, Chris 173, 175
 Cochran, Welker 136
 Cook, Stephen 2 thru 6
 Ceulemans, Raymond 144, 147,
 169, 170, 172, 177
 Dieckman, Dennis 176
 Gwinn, Joe 138, 139
 Hallon, Carlos 167, 170
 Hoppe, Willie 59, 136, 138
 Jasper, Dick 141, 146
 Karsh, Jerry 175
 Kastil, Vic 176
 Kilgore, Ray 177 thru 183
 Klinkert, Gerard 177
 Kobayshi, Nobuski 114, 115

Kolb, Gerry 175
 Komori, Junichi 147
 Liebovich, Carl 175
 Martin, Johanna VII
 Maloney, Bill 178
 Mortell, Ray 175
 Mosconi, Willie 138
 Navarra, Enrique V
 North, John 175
 Pineras, Hernando 176
 Pool and Billiard Magazine 138, 139
 Redlich, Leonard 175
 Reyes, Efran 147, 169
 Robin, Eddie 146
 Sang Lee 117, 122, 147, 158, 159 thru
 165, 167, 169, 177
 Saygainer, Semih 144, 177
 Schraeger, Rich 175
 Segal, Dan 130, 142, 143, 176
 Shooni, Mazin 170
 Sperber, Don 175
 Tomoaki, Nakatani 60, 61, 120
 World Report, 3-Cushion 138, 139

Excerpts From Book Reviews and Players Comments

For years Harris has followed some of the world's best masters of the 3-cushion game, finding out the know how of billiard systems, techniques and tips from such players as Kobayashi, Komori, Sang Lee, Ashby, Bitalis, etc., etc.....these were collected by Walter Harris, who considers himself a billiard reporter, and put into two books, volume I & II. These really unique study books named the "Billiard Atlas" will be arriving onto the Dutch market to help the 3-cushion player and eventually the Belgium player, and they can profit from the knowledge of these top players. A "must" for every 3-cushion player who wants to improve his game tremendously.....by GERARD KUNKERT in Holland's *BILJART Magazine*

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