

**SYSTEM PLAY  
IN  
THREE-CUSHION  
BILLIARDS**

**BY**

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**Ten Illustrations**

**SYSTEM PLAY**  
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**BILLIARDS**

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**An explanation of the various diamond  
systems used by the world's greatest players  
Fully Illustrated**

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**and**  
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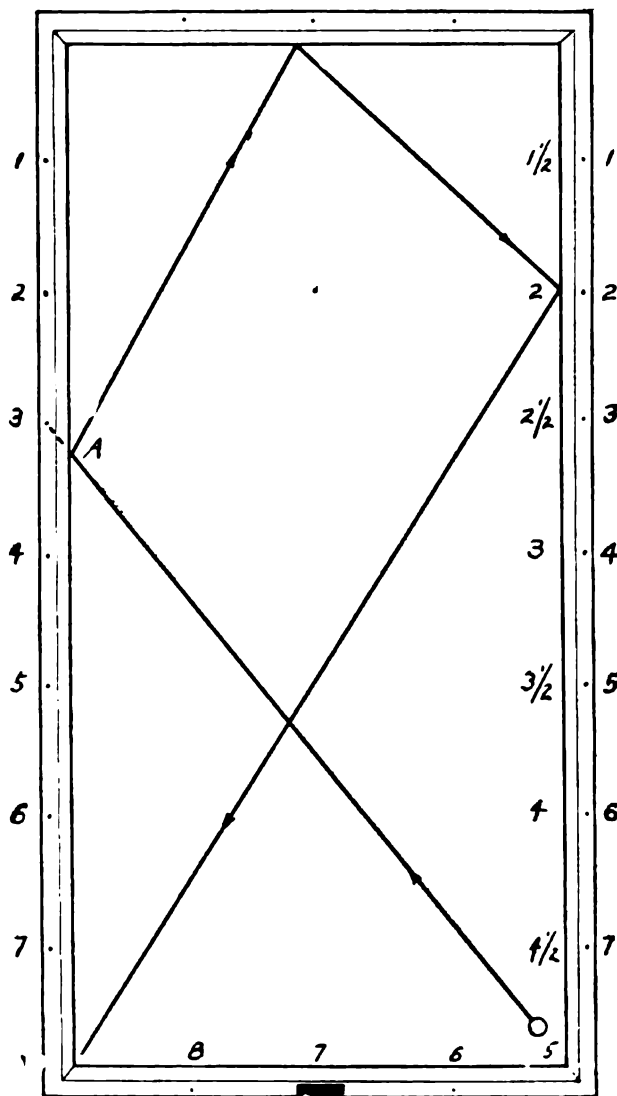


Figure 1

## FUNDAMENTALS OF THE DIAMOND SYSTEM

With the cue ball at one corner of the table, if the opposite side rail is struck at a point on a line drawn from the corner to the third diamond counting from the opposite end of the table, the ball will travel around the table and arrive in the corner on the opposite side of the table, as shown in figure 1.

If the course of the ball is carefully watched, it will be noticed that it will leave the second side rail at a point even with the second diamond. Figure 1 is the foundation diagram of the so-called "Diamond System."

Before going into greater detail in regard to the "System," certain general facts should be carefully noted.

All shots should be made with a smooth even stroke with a good "follow through." The cue ball should be cued center with running English and with just sufficient force to carry the ball to its destination. Running English does not mean extreme English, but just enough to give the ball a natural twist in the direction of its course. Address the ball at its exact center and then slightly favor one side (about the width of the cue tip from the center).

In the following instructions the terms "shoot into" and "come off" will be used.

In shooting into a diamond the ball should travel on a line which passes through the particular diamond specified. At A, figure 1, the ball is being shot into number 3 diamond.

The term "come off" refers to the point at which the ball leaves the rail, the point being designated with reference to the particular diamond which is

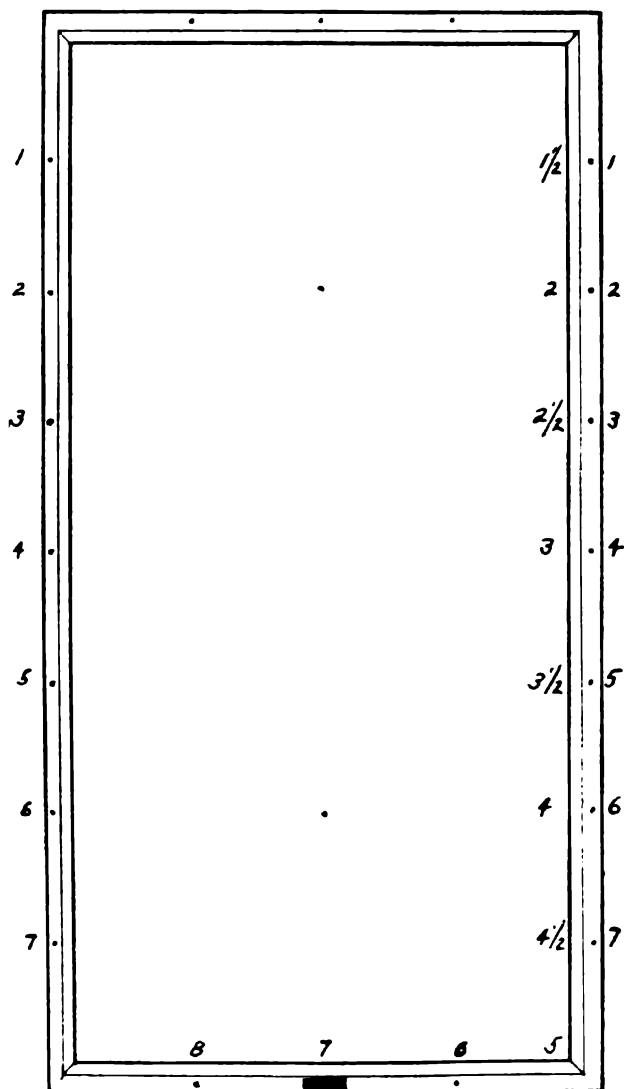


Figure 2

abreast of the point at which the ball leaves the rail. At B, figure 1, the ball is coming off number 2 diamond.

Where fractional diamonds are mentioned the reference is to points intermediate between adjacent diamonds. For example, diamond number  $3\frac{1}{2}$  is a point half-way between diamonds number 3 and 4.

Since the table is symmetrical, it is immaterial which of the four corners is used as a base.

The diamonds on the side rails are numbered from 1 to 7, starting from the end of the table toward which the ball is shot, as shown in figure 2.

It will be noted that there are seven diamonds on each side rail, three on one end rail, and two diamonds and a name plate on the other end rail. The center of the name plate corresponds to the middle diamond on the opposite end rail.

In addition to the diamond numbers, the position of the cue ball is identified by a number known as the "cue ball position." The diamond numbers and cue ball position numbers being placed outside the rails to avoid confusion with the cue ball position numbers which are shown inside the rails.

The cue ball position numbers increase in the same direction as the diamond numbers, but do not correspond to the diamond numbers except at diamond number 2, where the position number and diamond number are the same.

The preceding description may appear complicated but with a little practice the numbers come to mind readily. Note that on the side rail the posi-

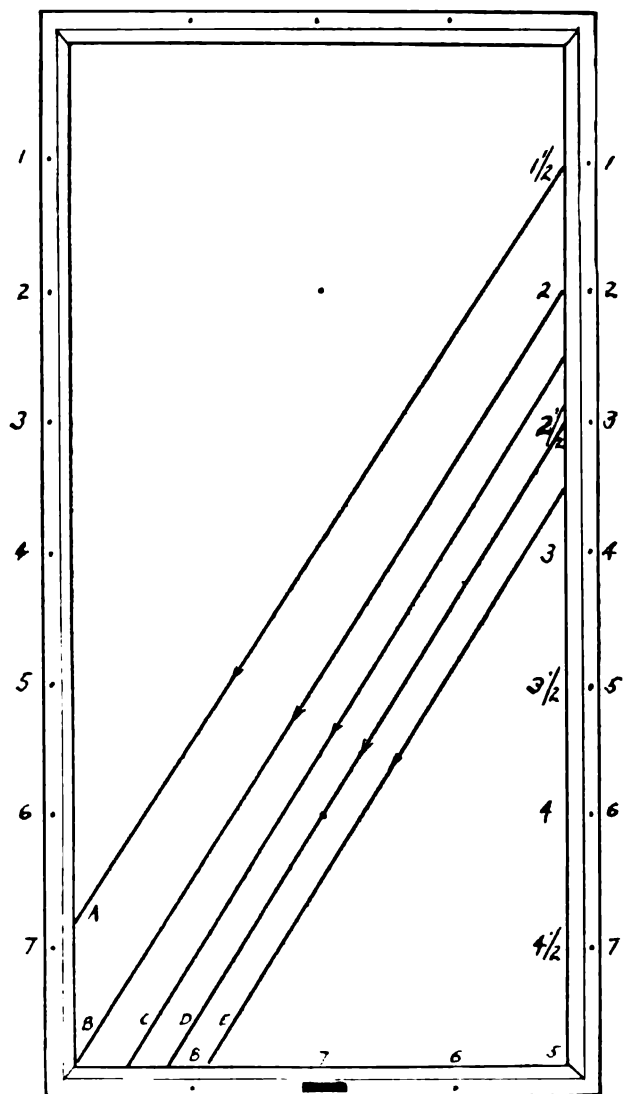


Figure 3

tion numbers increase  $\frac{1}{2}$  with each succeeding diamond, whereas on the end rail the position numbers increase by 1.

It should be pointed out that the position numbers as shown apply to all shots directed toward the left-hand side rail. If directed toward the right-hand rail, the position numbers apply similarly to the left-hand side rail, and the numbers on the end rail would be transposed, 5 being in the left-hand corner instead of the right.

As shown in figure 1, when shooting from position 5, if the desired destination of the ball is the lower left-hand corner, it is necessary that the ball come off number 2 diamond.

Figure 3 shows the course a ball would take coming off diamond numbers 1, 2,  $2\frac{1}{2}$ , 3 and  $3\frac{1}{2}$ ; it being borne in mind that in each case the cue ball is shot from position 5 toward particular points on the left-hand side rail.

When shooting from any other cue ball position, to arrive at the various destinations shown in figure 3, add  $\frac{1}{4}$  diamond to the "coming off" number for each whole cue ball position less than 5 and subtract  $\frac{1}{4}$  diamond for position 7.

To illustrate this last point, suppose the cue ball is in position number 4, the ball must come off diamonds number  $1\frac{1}{4}$ ,  $2\frac{1}{4}$ ,  $2\frac{3}{4}$ ,  $3\frac{1}{4}$  and  $3\frac{3}{4}$ , to reach points A, B, C, D and E respectively.

As a further illustration, suppose the cue ball were in position number 3 and we wish to reach the corner the ball must come off diamond number  $2\frac{1}{2}$ ,



and to arrive at point A, it must come off diamond  $1\frac{1}{2}$ .

Still referring to figure 3, if we are shooting from position number 7, to arrive at A, the ball must come off  $\frac{3}{4}$  diamond; to reach the corner it must come off diamond  $1\frac{3}{4}$ ; and to cross the spot, it must come off  $2\frac{3}{4}$ .

The foregoing should be thoroughly understood before any attempt is made to put the system into practice, as the whole system is based on these fundamentals.

Before proceeding further, it should be mentioned that the systems herein described apply only to standard 5 ft. x 10 ft. tables equipped with regulation cushions. Manufacturers of billiard tables equip them with cushions specified according to their resiliency. The system applies only to tables equipped with regulation 18-45 rails. Furthermore, unless the ball is properly stroked the ball will deviate from its natural course.

With these limitations in mind the student should select a high grade billiard room where standard equipment may be found before making his first test of the system.



## **PUTTING THE SYSTEM INTO PRACTICE**

Having the diamond numbers and position numbers clearly in mind, place the cue ball in the lower right-hand corner far enough from the rail so that it can be properly cued. The ball will then be in position 5.

(a) With an even stroke shoot into diamond number 3 on the left-hand side rail. The ball will

come off number 2 diamond and land almost exactly in the corner.

(b) Replace the ball in position 5. Shoot into diamond number 4. The ball will come off number 1 diamond and land at number 7 diamond (point A, figure 3).

(c) With the cue ball again in number 5 position, shoot into number 2 diamond. Note that the ball comes off number 3 diamond, crosses the spot and lands on the end rail close to the diamond nearest the corner, (see C, figure 3).

In each case note that the sum of the diamond numbers equals the cue ball position number.

In (b) you shot into 4 and came off 1, ( 4 plus 1 equals 5).

In (c) you shot into 2 and came off 3, (2 plus 3 equals 5).

The following rule should now be memorized.

From the cue ball position subtract the number of the diamond you desire to come off and the remainder will be the number of the diamond you must shoot into.

A few illustrations will make this clear.

From position 2 to come off 2, shoot into nothing (the corner). 2 less 2 equals nothing.

From position number 7, to come off 1 shoot into 6.

From position number 6 to come off 3, shoot into 3. From the same position to come off 2, shoot into 4. Etc.

Note that the destination of the ball is not men-

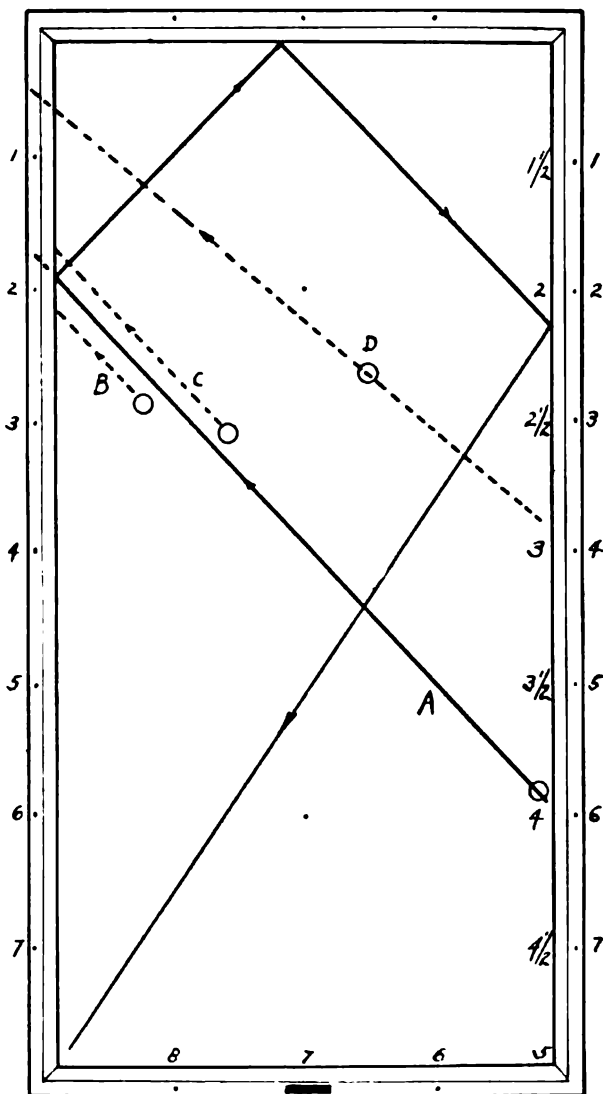


Figure 4

tioned. So far we are concerned only with the number of the diamond from which the ball comes off.

In practicing, use only one ball; make certain of your cue ball position and the number of the diamond you must shoot into and watch the ball come off the proper diamond. In a short time you will be able to make the cue ball come off any desired diamond as far down as diamond number  $3\frac{1}{2}$ . Beyond this point it is best not to attempt to apply this particular system, as this portion of the table can be reached in another manner, as will be explained later.

The question will naturally arise "What should be done if the cue ball does not happen to lie along the rail at any of the given position numbers?"

The answer is rather difficult to express in words.

Suppose we wish to reach the corner.

In figure 4 the cue ball is shown in four different positions. The ball which lies on line A is in cue ball position 4. It would still lie in position 4 if it lay at any other point on the line A, since line A is the course of the ball. If the ball lies an inch or two on either side of the solid line as at B or at C it should be shot along the dotted lines which are parallel to line A. In either of the two latter cases the ball would still come off number  $2\frac{1}{4}$  diamond.

If the ball lay at D a line drawn from position 3 through diamond number  $\frac{1}{2}$  would pass through it. The ball is, therefore, considered to lie in position number 3.

In general, having determined the number of the diamond to come off, consider the various pairs of numbers whose difference is that number, the first

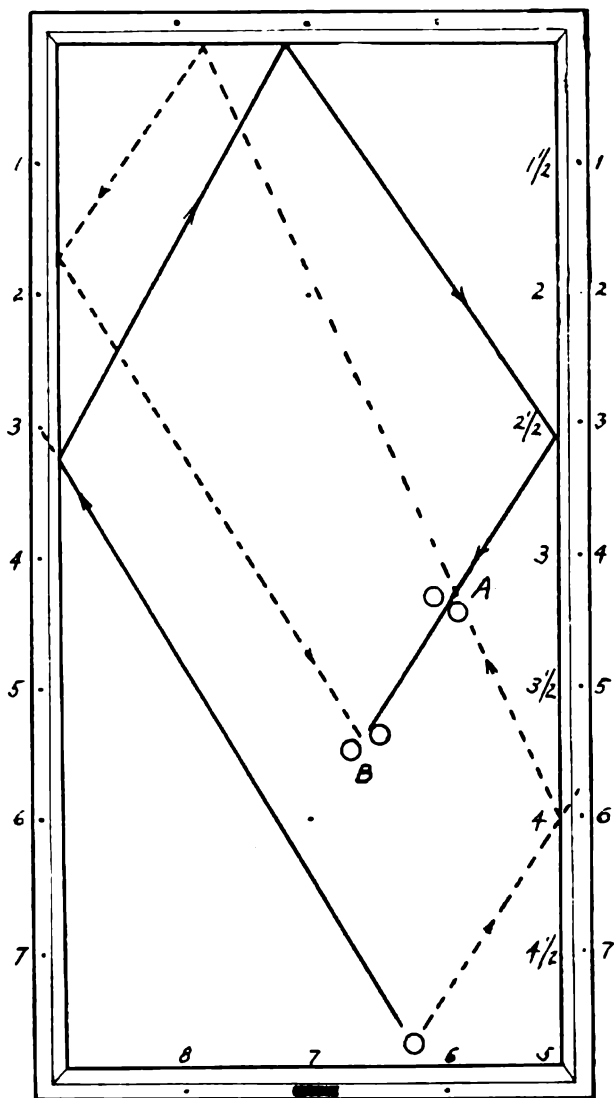


Figure 5

number of the pair being the cue ball position number the second being the number of the diamond to be shot into. Then select the pair which establishes the line running closest to the cue ball. If such a line passes through the ball the position is known at once, otherwise the ball should be shot along a path parallel to the line which comes nearest to passing through the ball.



## BANK SHOTS

Although the system will apply to all "round the table" shots, it is particularly valuable in the case of bank shots where the cue ball has a small target to strike. A careful preparation of the shot will largely increase the probability of a count.

If the object balls lie close together, a bank shot is often the only means of scoring. If the balls are not separated more than an inch or two, the target should be the point midway between them and the course of the cue ball should be such that a count may be made by contacting first with either object ball. This means that the line joining the object balls should be as nearly as possible at right angles with the course of the cue ball, as at A, figure 5, and not as shown at B (solid line).

With the balls placed as at B, a better shot would be to come off diamond  $1\frac{3}{4}$  on the left-hand side rail. The shot is illustrated by the dotted line. The shot illustrated by the solid line, figure 5, is figured to come off  $3\frac{1}{4}$  diamond, the cue ball being in position  $6\frac{1}{4}$ . It is, therefore, shot into number 3

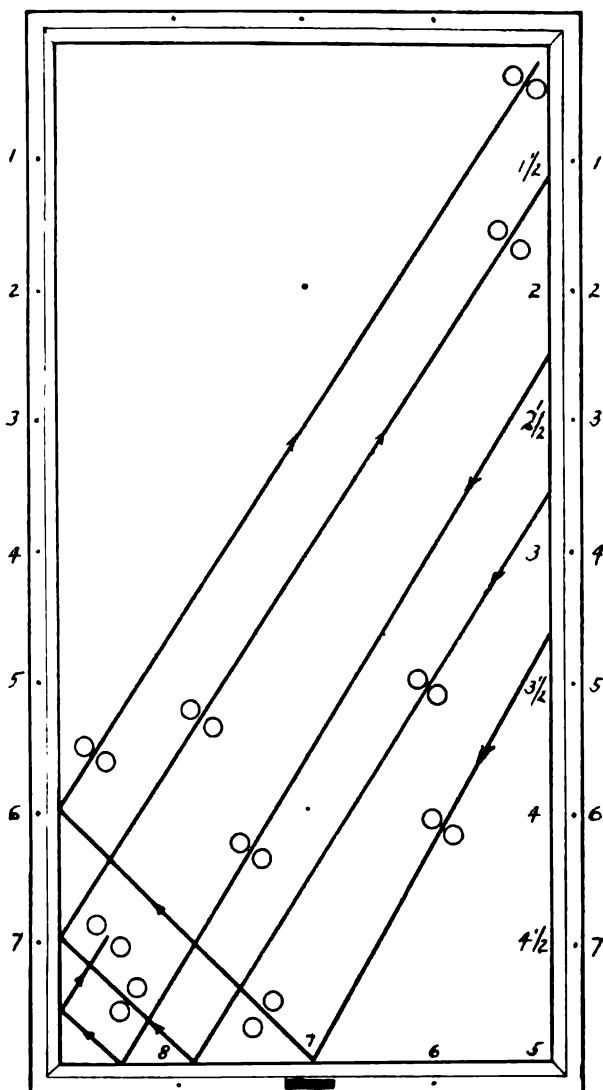


Figure 6

diamond. The shot illustrated by the dotted line in the same figure comes off  $1\frac{3}{4}$  diamond, and the cue ball is shot into diamond  $5\frac{3}{4}$ , the cue ball this case being in position  $7\frac{1}{2}$ . Here we are shooting into the right-hand side rail; therefore, as previously explained, the position numbers on the end rail are reversed.

Figure 6 illustrates the course of a ball after completing a circuit of the table. To avoid confusion, only that part of the course is shown after the ball has made contact with the third rail, the assumption in this case being that the ball was shot from position 5. The various pairs of balls shown in the figure illustrate the large number of possible bank shots.



## THE "TWICE AROUND" SYSTEM

Figure 7 illustrates the "Twice Around System." The figure is self-explanatory. A ball shot along any of the lines A, B, C or D will go around the table, arriving at the middle diamond of the lower end rail proceeding from there to number 6 diamond on the left-hand side rail and eventually arriving at the upper right-hand corner. This system is of particular value in reaching any of the points X, Y or Z from any point on that half of the table which lies to the left of the diagonal drawn from corner to corner.

It is, of course, impossible to illustrate by words or diagrams every possible shot to which the systems apply. Familiarity with the foregoing illustrations will permit the application of the diamond system to



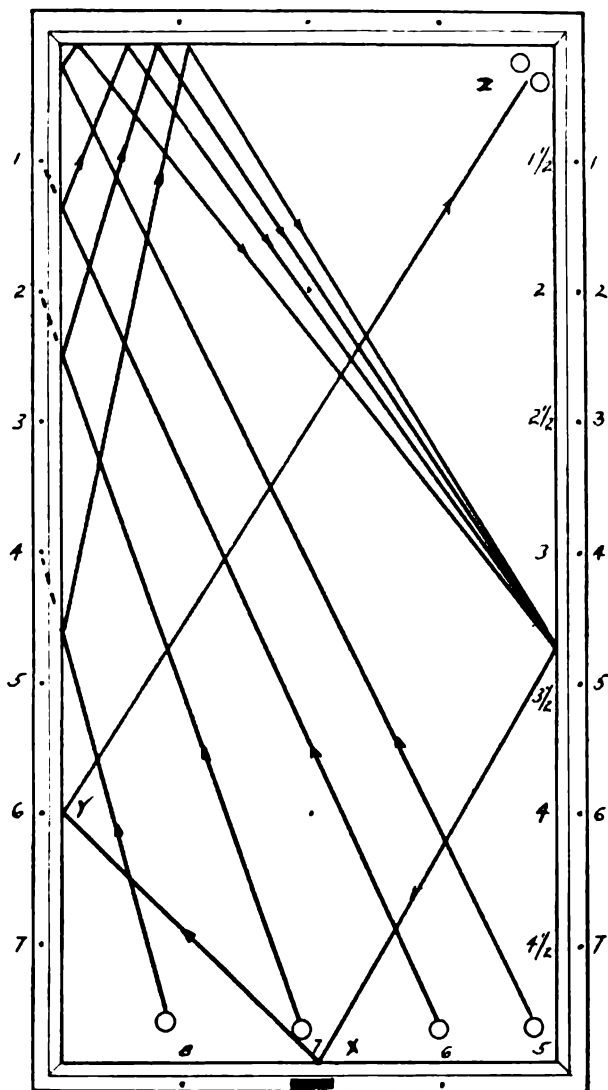


Figure 7

an infinite number of shots. By interpolating between the diamonds, that is, by using the fractions of diamonds, the positions of the object and cue balls can be definitely established. It is then possible to concentrate on the particular spot on the first side rail which the cue ball must strike. Thus there is a more definite objective to each shot than in shooting merely "by eye."

Except in the case of the "twice around system" it is not advisable to apply the diamond system where it is necessary for the ball to come off the right-hand side rail at a point lower on the rail than diamond number  $3\frac{1}{2}$ .

To reach points outside the range of either of the two foregoing systems, the "plus two" system is often used.



## THE "PLUS TWO" SYSTEM

Figure 8 illustrates the system. Shooting from any diamond on the right-hand side rail into the upper end rail  $\frac{1}{2}$  diamond from the corner, the ball will return to the right-hand side rail at a point two diamonds lower down on the rail from the starting point. Running English should be used. In the figure the ball starts at number 3 diamond and returns to number 5 diamond. The dotted line shows the course of the ball after leaving the side rail at diamond number 5. The system is of value for making bank shots where the object balls lie close to the side rail.

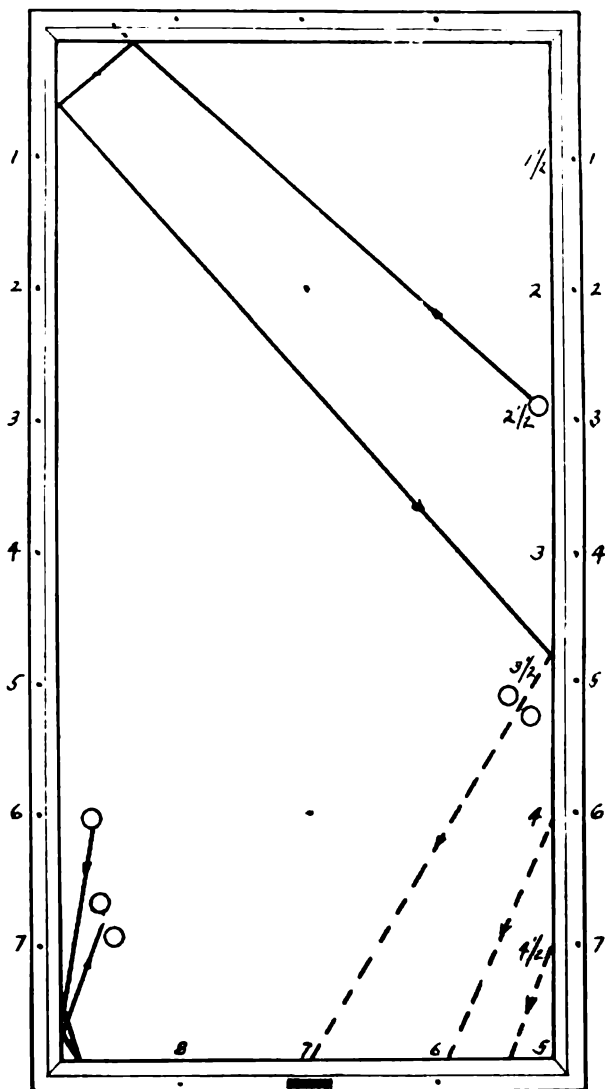


Figure 8

To reach a point on the side rail only one diamond lower down than the starting point, the ball is shot directly into the corner. To reach a point three diamonds lower down, shoot into one full diamond from the corner. The dotted lines show how the ball will come off diamonds number 5, 6 and 7.

The following cases will illustrate how the system may be used.

(a) Shooting from number 2 diamond, to reach number 3 diamond, shoot directly into the corner.

(b) To reach number 4 diamond (2 plus 2) shoot into  $\frac{1}{2}$  diamond from the corner.

(c) To reach number 5 diamond, shoot into 1 diamond from the corner.



## **SNAKE SHOTS**

The following system is helpful in doubling a rail to make so-called snake shots. This class of shot is made by shooting into a rail with full reverse English, the ball proceeding to a second rail and returning to the first rail struck, thereby securing three cushions with only two rails. Such a shot is illustrated in the lower left-hand corner of figure 8.

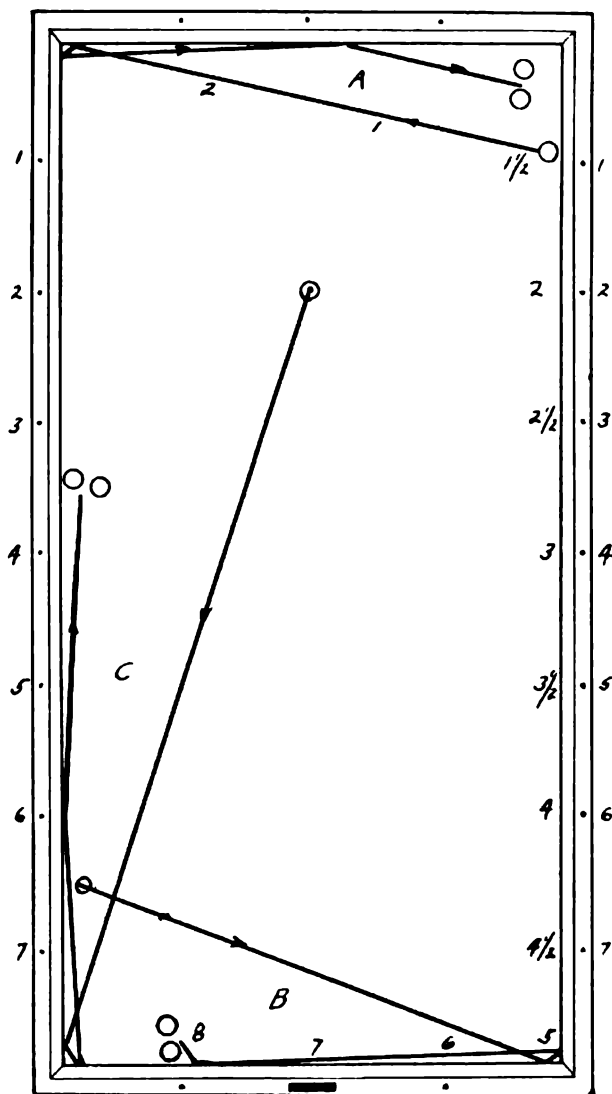


Figure 9

If the cue ball is near the side rail  $1\frac{1}{2}$  diamond from the corner (B, figure 9), and is shot into the opposite corner with full reverse English, making sure to strike the end rail first, the ball will come back straight across the table in contact with the end rail. If the cue ball lies closer to the end rail and is shot along a line parallel to the line 1—2, it will double the end rail and return to the corner.

In general, in doubling the end rail when the cue ball is shot into the corner, the ball will return to a point on the side rail which is determined as follows: from  $1\frac{1}{2}$  subtract the number of the diamond from which the ball is shot.

At B, figure 9, the ball is shot from diamond  $1\frac{1}{2}$ .  $1\frac{1}{2}$  less  $1\frac{1}{2}$  leaves nothing; hence, the ball returns to the corner.

At A, figure 9, the ball is shot from diamond number 1.  $1\frac{1}{2}$  less 1, leaves  $\frac{1}{2}$ . Thus, the ball returns to the side rail at  $\frac{1}{2}$  diamond from the corner.

At C, figure 9, the cue ball is shown near the spot. If shot into the side rail near the corner, with reverse English, it will come back along the side rail.



## GENERAL APPLICATION OF SYSTEM PLAY

Use of the system is by no means limited to bank shots. In shooting off an object ball, first imagine that the object ball is the cue ball and determine what

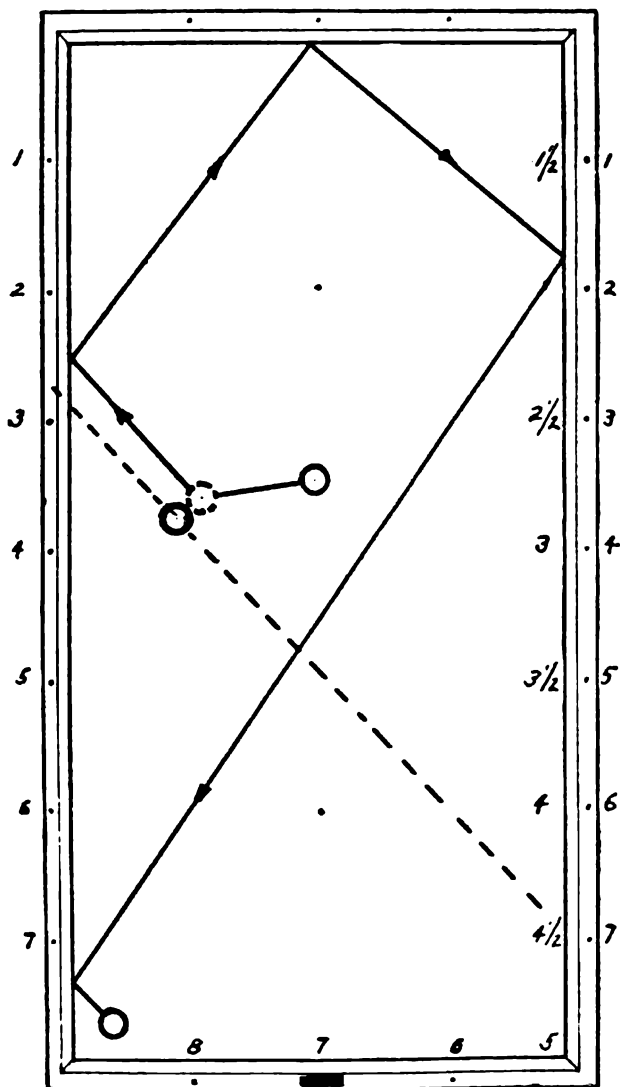


Figure 10

spot on the rail the ball should strike in order to follow the proper course to the second object ball. Then, remembering that the cue ball must follow a parallel course into the first rail, find the spot on the rail which the cue ball must strike. The shot then becomes a sort of carom off the first object ball to the proper spot on the rail. Running English must, of course, be used.

Figure 10, illustrates the application of the "System" to a "round the table" shot. Assuming that the first object ball is the cue ball we would be shooting from position  $4\frac{1}{2}$  into  $2\frac{3}{4}$  diamond to come off  $1\frac{3}{4}$  diamond. The shot is purposely planned to come short into the side rail as the chances of a miss are thereby greatly reduced. The cue ball must leave the first object ball along a line parallel to the dotted line.



## CONCLUSION

In applying the system the student will meet with disappointment at first and will be inclined to condemn it. Many things may cause it to fail, some of which may be due to the equipment. Usually, however, the fault lies in the player.

There are few amateurs who have a really good stroke and a good stroke is essential. Don't try to master the whole subject in a few hours. Learn the foundations of the system and the details can be learned at leisure.