

Bob Jewett



Hidden Treasures

The diamond system can help you strike it rich on the table.

In last month's column, I went over several aiming systems. This time it's diamond systems — sending the cue ball off one or more cushions to hit a target ball. Again, the emphasis is on looking deeper than the basic description of each system, so that you understand the limitations of each, and how well each can help you in game situations.

In Diagram 1 is the classic "Corner Five" system. This is sometimes attributed to Willie Hoppe, but it was developed by others, and Hoppe never seemed to use it.

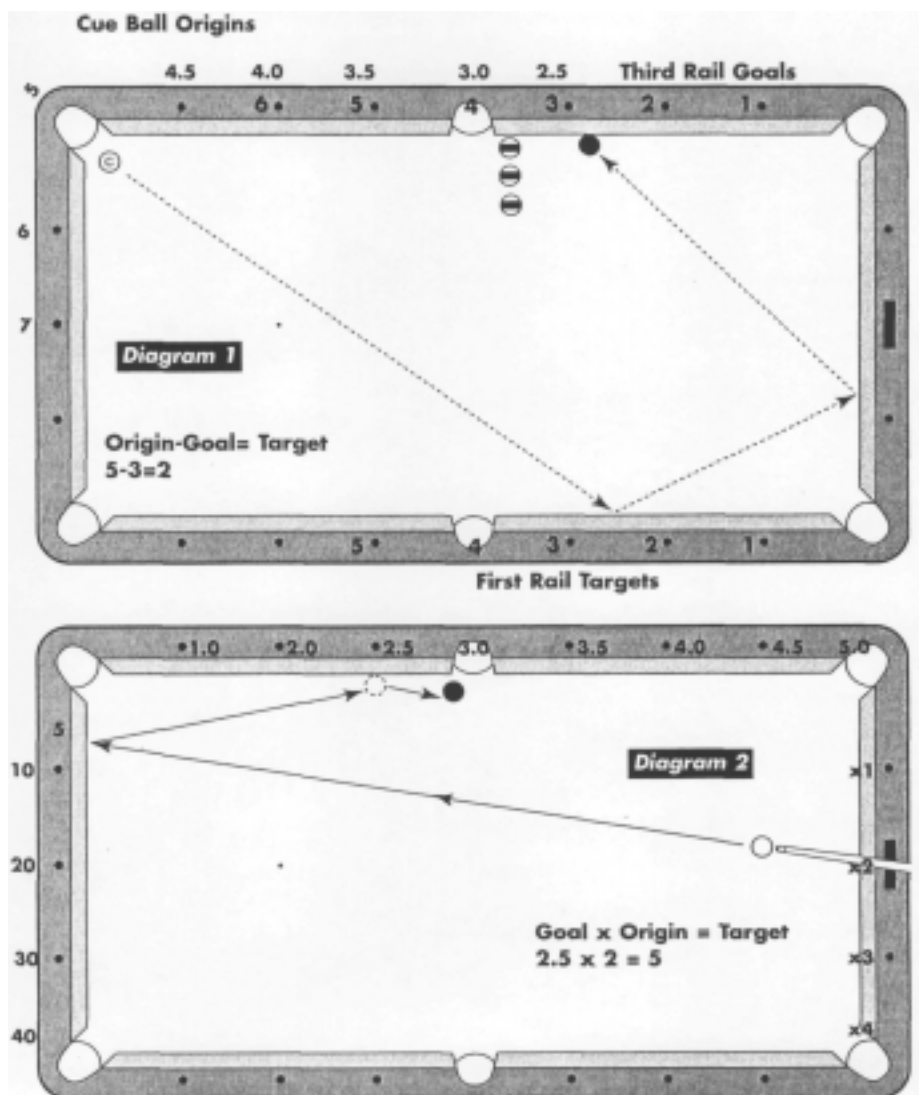
The problem is presented is based from a game of 8-ball. How can you bank the cue ball to hit the 8? The diagrammed path looks likely, but where, exactly, do you need to hit on the first cushion?

The first things to note — and eventually memorize — are the numbers around the cushions. There are three sets, corresponding to the cue ball's "origin," the target on the first rail, and the goal on the third rail. The first set is not obvious, but the other two are simply the number of diamonds from the far end cushion. Note that when the cue ball starts from the corner, it has an origin of five, which gives the system its name. The other cue ball numbers go by halves up the long rail and units along the short rail.

A note on the diamond location: For a start, you will always be going towards a point on the rail that is even with the line of diamonds, and not towards a point on the rail groove. In the diagram, the cue ball is going towards "2" although it will touch the cushion even with diamond 2.5. You may want to try the system using the "opposite" or rail groove points, but first, try the "through" sighting.

For the shot shown, where is the goal? If you look towards the 8 ball from the approximate place on the second cushion where the ball will land, you will see that you want the cue ball to go towards diamond 3 — the goal. The origin of the cue ball is given by where your stick passes over the rail when you are in shooting position, in this case 5. The arithmetic to find the target on the first cushion is easy: Just subtract the goal from the origin to get 2.

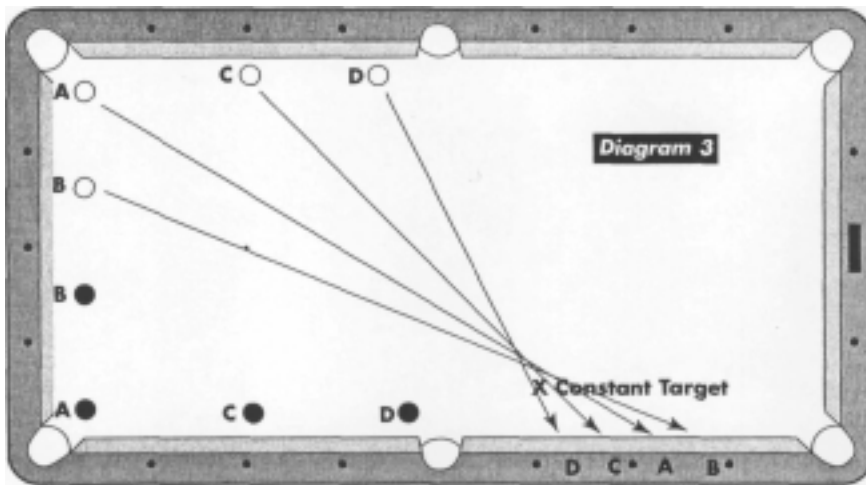
One of the most important parts of this system is to use the correct spin on the cue ball. The idea is to find the spin that makes the shot as consistent as possible. At first



glance, it might seem that playing right in the center of the cue ball would be best, but it turns out that far better consistency is achieved by using running English (left in the case shown) on the cue ball. At the same time, you should use follow. This allows the cue ball to have about the same action no matter how far from the first cushion it starts from. If you used center left instead, the angle off the first cushion would change quite a bit depending on how much follow it had picked up from the cloth on the way to the cushion.

Often the target ball will not be on the cushion, and you will have to work a little harder to find the goal on the third cushion. Just sight from the second cushion, and find the goal on the third.

Here's a practice suggestion for this system: First shoot the diagrammed shot until you can hit the target every time. Now vary the speed from just tapping it — perhaps to leave a safety — to warp speed where the cue ball struggles to stay on the table. Once you have this position down, start varying the cue-ball position — you will need to do



some arithmetic — and the object-ball position. Here's one last shot: Move the blockers to below the side pocket and put the 8 in the jaws. From the corner, bank to make the 8. Be careful to chose the third rail goal correctly — it's not 4.

For more details on the corner-five system, and how to select a goal when the target ball is a long way after the third cushion, see Robert Byrne's "New Standard Book of Pool and Billiards." Look in the carom section.

Diagram 2 shows a system from Walt Harris' "Billiard Atlas" he calls "System Sid" after Sid Banner. While the system comes from three-cushion billiards, there's no reason pool players can't use it profitably. Here the goal is to come off one cushion to hit a target. The cue ball's origin numbers are $x_1, x_2, x_3...$ and again you count where your stick passes over the rail when you are in shooting position. The second-rail numbers are as shown — note that there is a change in the spacing of the numbers between 2.0 and 2.5. Also note that this system uses "opposite" or rail groove numbering for the second cushion, so the phantom ball is shown at 2.5. The first-rail numbers are as shown. Again, you just have to memorize these.

The arithmetic is a little harder than before. In the shot shown, you have to land the cue ball at about 2.5 on the second cushion to make the ball in the side. The cue ball is at x_2 . Multiply the two numbers to get 5, which is the target on the first cushion. Are you good at multiplying two-digit numbers in your head? It's not hard if you practice, but a simpler way is to do the arithmetic for the even diamonds surrounding the cue ball's location, and then splitting the difference according to how far the cue ball is sitting to one side or the other of the space between the diamonds.

This system uses no side-spin, but does use follow. It is critical to the shot to have no side on the cue ball; any little bit will change the path off the end rail. To practice

this, use a stripe as the cue ball and see if you can roll the stripe like a tire to the first rail.

The system shown in **Diagram 3** has been described in these pages before by Robert Byrne, but for a billiard table. Pool table cushions behave differently, often with quite a lot of variation within one brand. You are going to have to figure out how the system works on your table.

Suppose you want to shoot the cue ball three cushions to contact a target ball that is sitting perfectly symmetrically with the cue ball. Shown are four such positions: AA BB CC DD. For example, shoot cue ball A three cushions to hit target ball A. This shot will be close to the path shown in Diagram 1, and the shot requires the same running follow you learned there.

When you are satisfied you have the target on the first cushion for position AA, mark it as shown. Repeat the process for positions BB, CC and DD. Now here is the amazing result: if you join each cue ball location with the corresponding target on the first rail, all of the point will pass through or at least come close to a single point. On my table it is about where X is shown; your table may be different.

Once you know this point, any time a shot like the ones shown comes up, you have a ready target. Even more useful is to note that if a shot is close to the perfectly symmetrical position, you have a starting point for your estimation of the path of the cue ball.

None of these systems will work without practice. During your practice session, pay close attention to the spin you are using on the cue ball and work to find the spin that makes the shot consistently. Try each on other tables — especially comparing results on new cloth to old — to find out how reliable the systems are under changing conditions. Once you have these systems in your repertoire, you'll be surprised how often they come up in games.

Bob Jewett is a BCA certified instructor.