



# Half-Ball, Revisited

A refresher course on the long-acknowledged, under-appreciated cut shot.

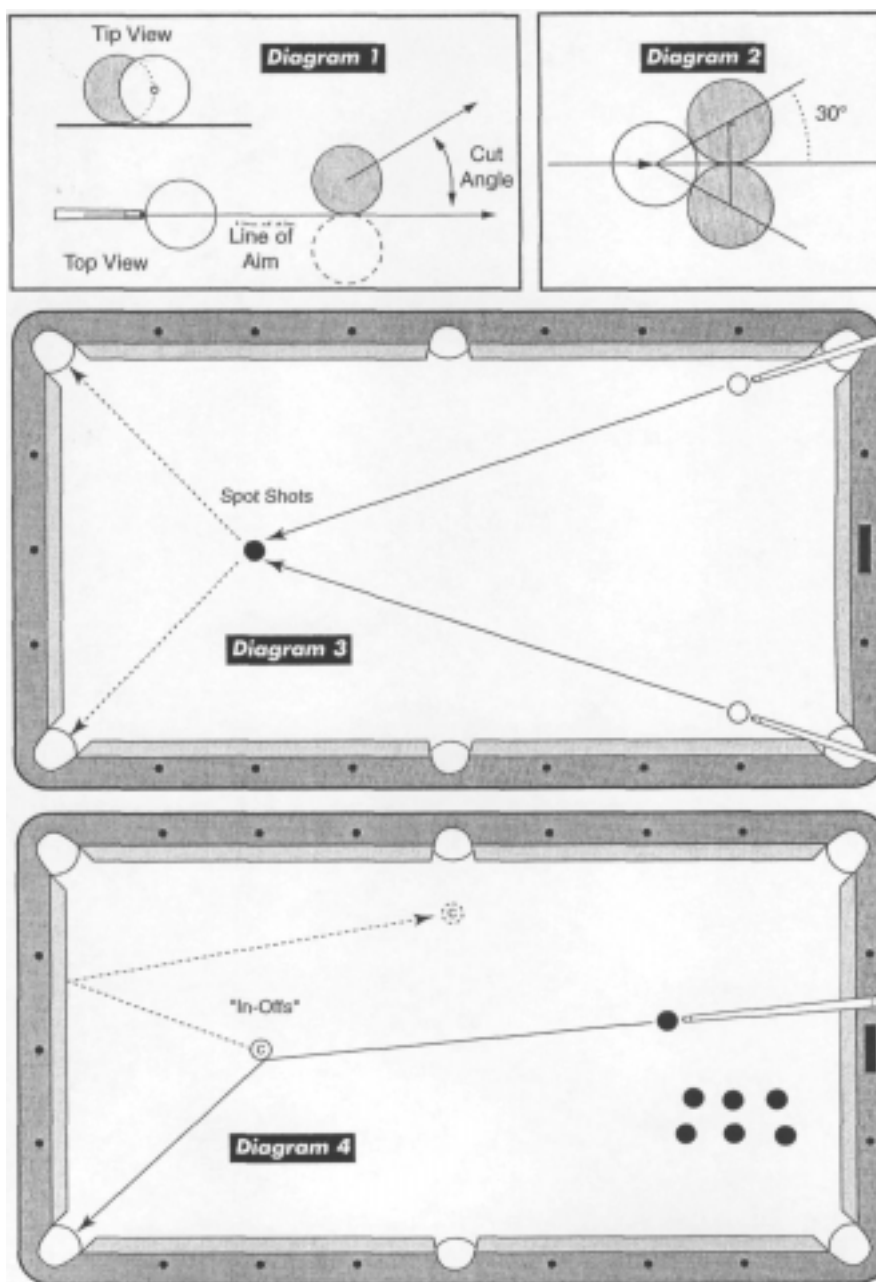
Of all the cut shots you encounter on the table, the half-ball shot is the first one you should study. Learning a few half-ball lessons will immediately improve your game. The importance of the half-ball shot has been appreciated for over 100 years — it's surprising that modern authors don't mention it more often. Some of these concepts have appeared in these pages before, so some of the following is review, but you'll find some new ideas as well.

First we need a definition. In a half-ball shot, the center of the cue ball goes directly towards the edge of the object ball, as shown in **Diagram 1**. In the top view, the center of the stick is aimed through the center of the cue ball at the exact edge of the object ball. In the tip's-eye view, you can see that half of the cue ball overlaps with half of the object ball.

What is the cut angle of this shot? Here's an easy demonstration. Place a second object ball where the dotted ball is shown in the top view. As the cue ball contacts both object balls, they will form a 60-60-60 triangle as shown in **Diagram 2**, so the two equal cut angles are 30 degrees. A common mistake is to think that "half" also means half of the maximum cut of 90 degrees. If you include the friction between the balls, the actual cut angle you get for a perfect half-ball stroke is a couple degrees less than 30.

The half-ball shot is the only cut angle that has a distinctly visible target. Even on a full-ball hit, there is no specific place to direct your stick; you estimate a contact point in relation to the edge of the ball. **Diagram 3** shows a practice shot for edge-aiming. Place a ball on the spot and the cue ball behind the line, as for a spot shot in 14.1 or One Pocket. Place the cue ball far enough away from the side cushion that your stick — when you are lined up for the shot — is over the corner pocket. Try aiming at the edge and see whether you pocket the ball. This aiming technique is probably unlike your normal method, so don't be surprised if the hit is too thin or thick at first, or if the shot looks a lot different from the left and right sides.

The real use of the half-ball shot is in accurately predicting the path of the cue



ball. To learn this facet of the shot, play the "reverse pool" shot in **Diagram 4**. Put the cue ball on the foot spot and take "object ball in hand" behind the line. That is, place an object ball as shown — about four inches to the right of the head

spot — and shoot it to hit the cue ball half-ball on the left side with the goal of "scratching" the object ball into the corner. The shot is easy if you shoot only hard enough to bank the cue ball to end up even with the side pockets as shown.

Also, play the object ball with follow; it must be rolling smoothly when it gets to the cue ball, so you might as well start it that way. If you are missing the pocket to one side, move the spot for the "object ball in hand" to the corresponding side until you find the "sweet spot."

While this shot may seem tougher than the spot shot, it is actually much easier. The angle of the rolling cue ball off an object ball when struck anywhere near a half-ball hit is so constant that you will find it hard to miss the "in — off," which is the name English billiards players have given to this kind of intentional scratch.

You must burn this half-ball carom angle into your brain. Knowledge of it will let you predict exactly where the cue ball will go on any rolling follow shot that is close to a half-ball cut. Here is a challenge to help you learn it: I'll bet you can make 15 of these "in — off" shots in a row in less than 60 seconds. You'll need a friend to catch and reset the cue ball as soon as it leaves the spot; it should not move more than six inches. While he's doing that, your job is to place another object ball on the "sweet spot" as soon as you've taken the initial shot. With practice, you'll shoot each ball before the previous ball is in the pocket. By the

time you're done with this, you'll know the path the cue ball wants to take.

Another useful fact: On a rolling half-ball shot, the cue ball and the object ball will move nearly the same distance after the collision. This means that in

ball from the end rail. Here's the secret: if you shoot this shot softly, there's a kiss, but if you shoot harder, the object ball sinks farther into the cushion, allowing the cue ball to move to the side before its return. For this angle of the cue ball, the half-ball hit is on the boundary of a kiss-out of the bank. Shot 5B displays another useful fact. For a half-ball draw shot, after the cue ball curves, it will be traveling at a right angle to its original line.

Both 5A and 5B can be extended to similar shots. In 5A, if the cue ball is farther from the end rail, requiring a fuller hit, the bank will surely kiss, whereas there is no kiss in the bank if the cue ball is closer to the end rail. In 5B, if you need to get the cue ball to draw back even farther than the right angle, you'll need your very best, nearly-a-miscue draw. Also, if the cue ball is back farther, so significant draw is lost on the way to the object ball, getting to the right-angle line is nearly impossible — unless the cut is fuller than half-ball.

Now it's time to get to the table and work these exercises into your game. You'll find that time spent with half-ball practice will show quick results.

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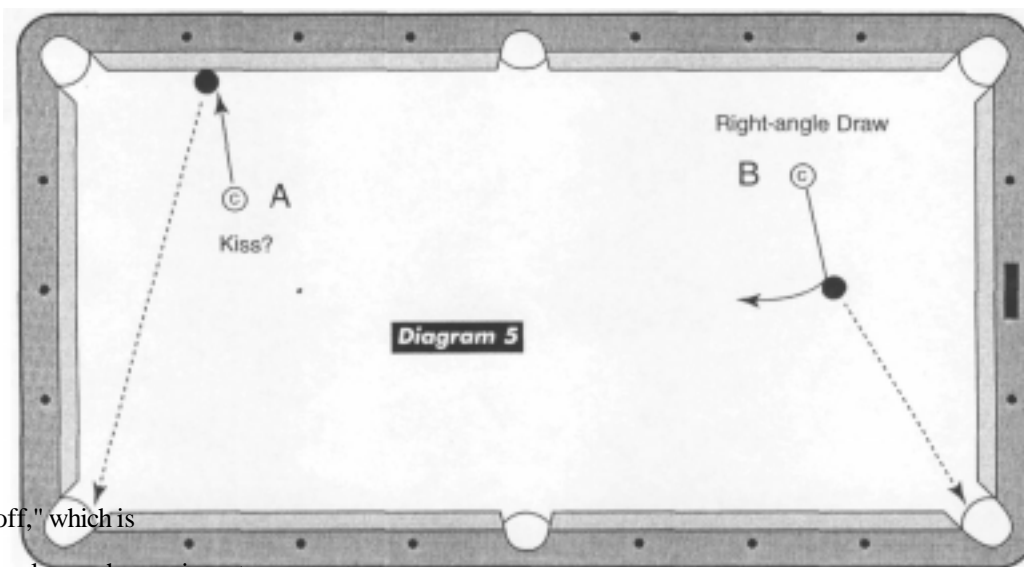


Diagram 3, the cue ball must touch the end rail if the object ball reaches the pocket because the distance to the rail (at about one diamond from the center) is shorter than to the pocket. If you place the cue ball by the side cushion for the spot shot, the hit will be fuller, and it is just barely possible to avoid hitting a cushion with the cue ball.

Diagram 5 shows two final half-ball features. In 5A, the shot is to bank the object ball cross-corner. It is frozen to the cushion just far enough from the pocket that a half-ball hit will deliver it to the corner pocket when the cue ball is shot firmly and straight toward the side rail (and parallel to the end rail). On my table, the object ball is a diamond and a