

“Coin Proposition Shots” David Alciatore, PhD (“Dr. Dave”)

ILLUSTRATED PRINCIPLES

Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the articles help you locate the resources on the website. If you have a slow or inconvenient Internet connection, you might want to view the resources from a CD-ROM or DVD. Details can be found online at: dr-dave-billiards.com.

There are many fun things you can do with a coin and a pool table. I like fun things, and I hope you do too, so let's look at a few classic coin proposition shots.

Let's start with a shot most pool players have seen before. As illustrated in **Diagram 1**, place a coin (e.g., a US nickel) on top of a cushion with a drinking glass sitting on the rail. The obvious goal is to hop the coin into the glass. The trick is to use the right speed to compress the cushion the right amount to flip the coin at just the right height. Give it a try. It's not very difficult once you get a feel for the speed required. **HSV B.17** shows a super-slow-motion demonstration of the shot. Check it out to see how easily the cushion compression launches the coin into the air.

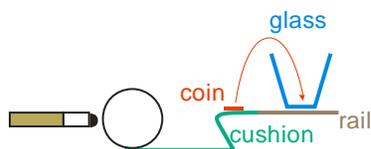


Diagram 1 Hop the coin off the cushion into the glass

Now let's look at another classic, in this case the carnival con game challenge to knock a quarter off an object ball (OB). The carnie places a ball in the center of a circle or on a dollar bill and then balances a quarter on top of the ball. As illustrated in **Diagram 2**, the goal is to hit the OB and have the quarter land more than 2-3 inches from the starting position (e.g., off a dollar bill, or out of a circle). **HSV B.48** demonstrates several approaches to accomplishing the goal. If you have convenient Internet access, check out the online video. It's more interesting to see the shots rather than read about them.

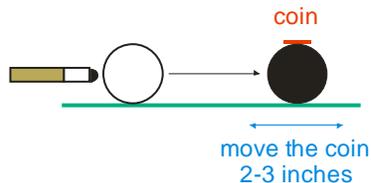


Diagram 2 Knock the coin off the ball

A typical “mark” will think the best approach is to hit the OB as hard as possible to somehow send the cue ball (CB) into the coin. As demonstrated in the video, this approach doesn't work ... the coin usually falls straight down. Physics can be cruel sometimes. One fairly reliable approach to moving the coin is to elevate the cue and use fast speed to jump or hop the CB into OB. As demonstrated in the video, any above-equator hit on the OB, makes the OB hop and launch the coin into the air well away from the ball. With a higher hit, the CB can hit the quarter either before or after hitting the OB and really sending the coin flying.

Another approach is to use a follow shot with medium speed, hoping to hit the quarter after it falls to and bounces off the table. Obviously, with this approach you need to hit the OB very straight and hope for a good bounce of the quarter, but it works fine when hit well. A third approach is to use slow speed to have the quarter ride the OB before sliding off, and hopefully bounce forward. With this approach, the speed needs to be just right; but when it is, the quarter can be sent forward quite a bit. See **HSV B.48** for several examples.

Another approach, with the OB on the foot spot of a table and the CB on the head spot, is to hit the shot very straight with firm speed to rebound the OB off the end rail to hit the quarter while it is bouncing. This can be difficult to do consistently; but when your aim is true, this approach works dramatically well. A final approach is to cheat and use a heavier CB (or a lighter OB). As demonstrated in **HSV B.48**, a heavier CB retains forward speed after hitting the OB and continues into the falling quarter, sending it forward.

Now don't expect to be able to be successful with all of these options if you are propositioned with this shot at a carnival. Carnies don't like to give away those large stuffed animals, so there are likely to be some "extra challenges" for you to overcome. For example, the cue the Carnie provides probably won't have a decent tip, so be sure to not stray from a center-ball hit. Also, the CB might not jump or hop very well on the carnival "table." And there probably won't be a rail cushion off which you can bounce the OB back into the bouncing coin. Finally, the CB might "conveniently" be a little lighter than the OB, making it impossible to drive the CB into the coin, with or without follow. However, with typical pool equipment, all of the options shown in **HSV B.48** are reasonable, albeit some tougher than others. Give them a try.

A final coin proposition shot is illustrated in **Diagram 3**. It's called the "two balls and a coin" shot. A coin is placed in the center of the table and your "mark" is asked to place his index fingers on each of the corner pocket hangers. The claim is that both balls can be pocketed with a single shot from the foot spot, even with the mark's fingers on the balls. This "two ball" proposition is usually more effective with a male "mark;" although, it can also work with a female. If you view the video demonstration on YouTube, you will see why this is the case. A link to the video can be found in the "Online Video Collection" section on my website under "miscellaneous" (see ["two balls and a coin" trick shot](#)). I don't want to spoil the surprise by describing the shot, so go online if you haven't figured it out yet.

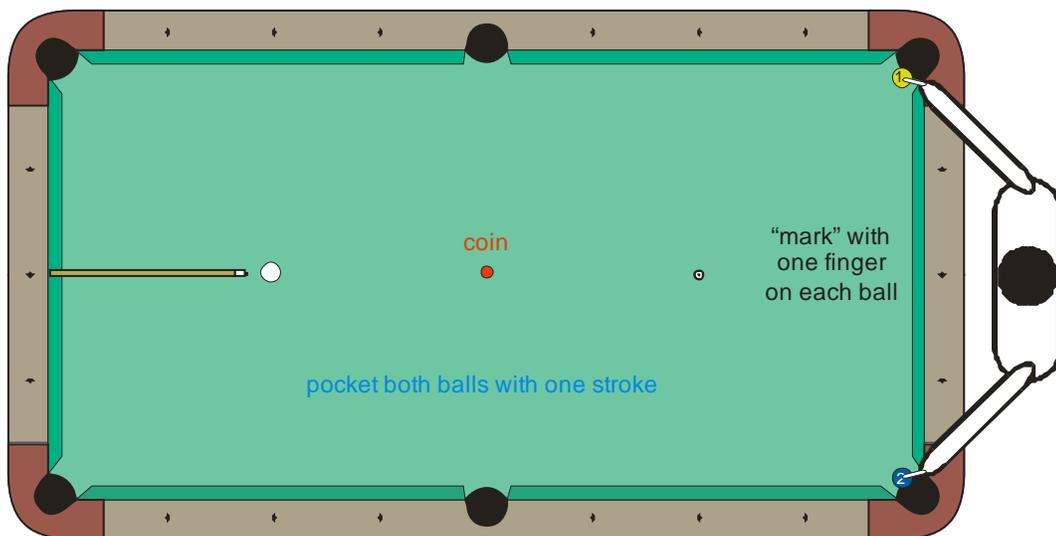


Diagram 3 "Two balls" and a coin



[HSV B.13](#) - Level cue follow shot hop over stacks of coins

[HSV B.17](#) - Coin hop off the rail into a glass trick shot

[HSV B.48](#) - "Hit quarter off ball" proposition/trick shot

Good luck with your game,
Dr. Dave

PS:

- Another interesting thing you can demonstrate with a coin is the fact that the CB hops on any follow shot, even with a near-level cue. This is due mostly to squirt (AKA “CB deflection”), which drives the CB down into the table with any above-center hit. For a demonstration, see **HSV B.13**. With a firm follow shot, the CB hops a lot higher than you might think. In fact, this effect can sometimes cause the CB to jump off the table if you hit a firm follow shot at an angle close to a rail, especially if the cue is elevated some.
- I want to thank Rod Kreuter at Penn State University for suggesting that I film the “knock the quarter off the ball” trick. Fellow columnists Bob Jewett and I worked on the video together when he was on a visit to Colorado, and it was fun. Thanks for the help Bob!

Dr. Dave is author of the book, DVD, and CD-ROM: “[The Illustrated Principles of Pool and Billiards](#),” and co-author of the DVD Series: “[The Video Encyclopedia of Pool Shots \(VEPS\)](#)” and “[The Video Encyclopedia of Pool Practice \(VEPP\)](#).”