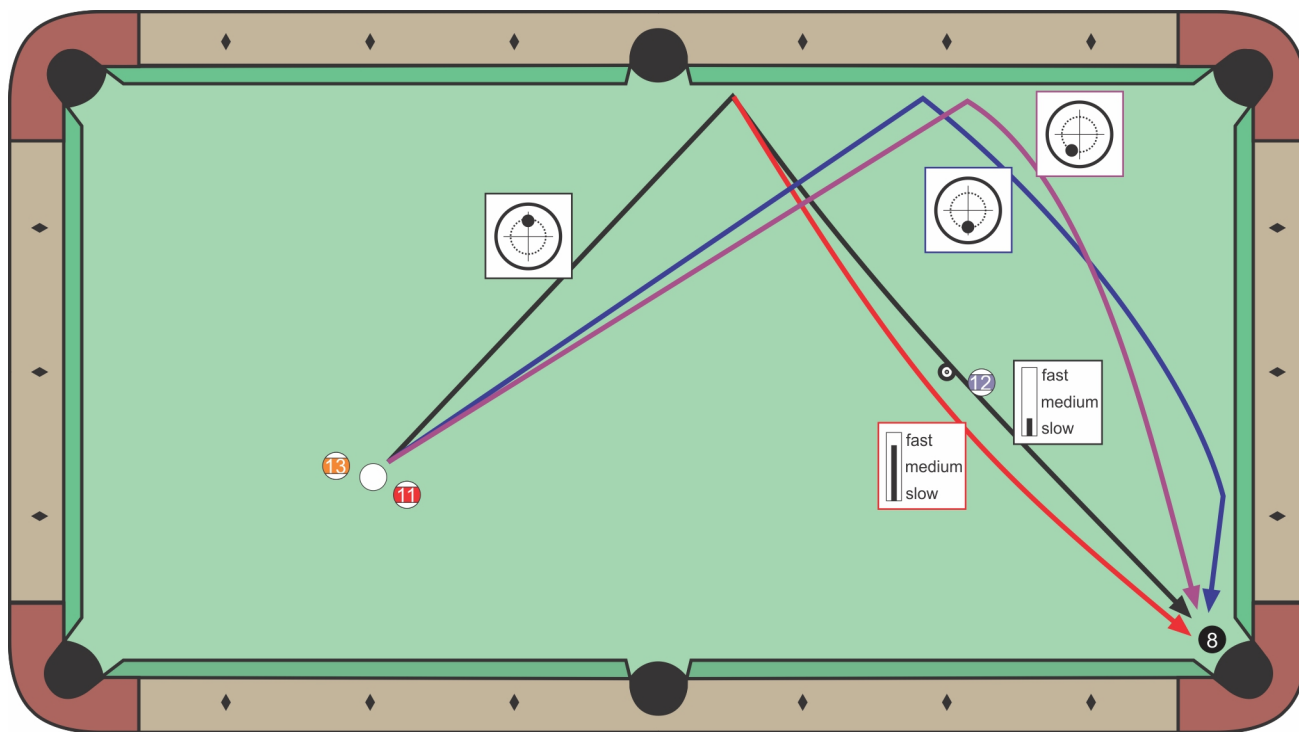


Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at [billiards.colostate.edu](http://billiards.colostate.edu). The reference numbers used in the articles help you locate the resources on the website.

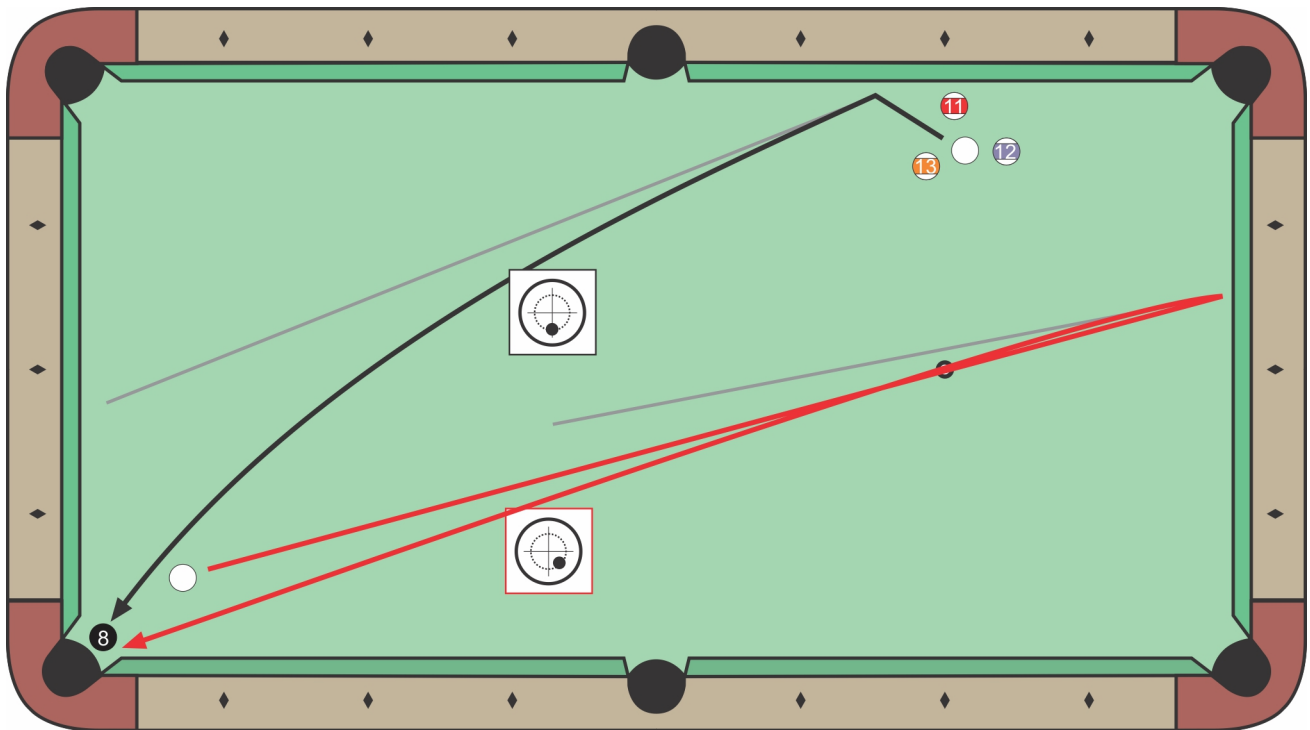
Do you know how to bend kicks? And do you know how to twist and stiffen or shorten banks? And do you think it is possible to bend a bank short? This article will explore these techniques and questions. To begin, you might want to view online videos [NV H.2](#) and [NV H.3](#). They demonstrate and discuss all of the terminology, shots, and questions in this article.

**Diagram 1** illustrates an 8-ball situation where we are shooting solids and need to kick at the 8-ball hanger. The 11 and 13 block the straight shot, and there are no reasonable shots at a jump, masse, or multiple-rail kick. Also, as shown by the black cue ball (CB) path, a slow-rolling one-rail kick is blocked by the 12. In situations like this, it is necessary to change the CB's rebound angle and path with speed and/or spin. As shown by the red path, one option is to simply use more speed to delay the curve forward to pocket the ball. Another option, as shown by the blue path, is to use bottom spin to shorten the angle and curve the rebound path. A final option, for example if additional obstacle balls blocked the other paths, is to add reverse spin (in this case, left) to the backspin, as shown by the purple path. The CB path can be shortened and curved quite a lot with this technique. It is helpful to know and practice all of these techniques, because sometimes a game situation will force you into one of these options.



**Diagram 1** Bending kick shots

**Diagram 2** illustrates two kick challenge shots that are fun to practice. The first, shown in black, is an 8-ball game situation, shooting solids, where the 11, 12 and 13 block many possible shot paths leaving only the one-rail kick at the 8 as shown. To an unexperienced eye, it might look impossible to curve the kick this much; but when kicking into a rail with bottom spin at a shallow angle like this, the resulting bend can be quite dramatic. A good challenge to practice is to see how far up table (above the corner pocket, if possible) you can curve the CB by varying speed and the amount and type of spin.



**Diagram 2 Kick challenge shots**

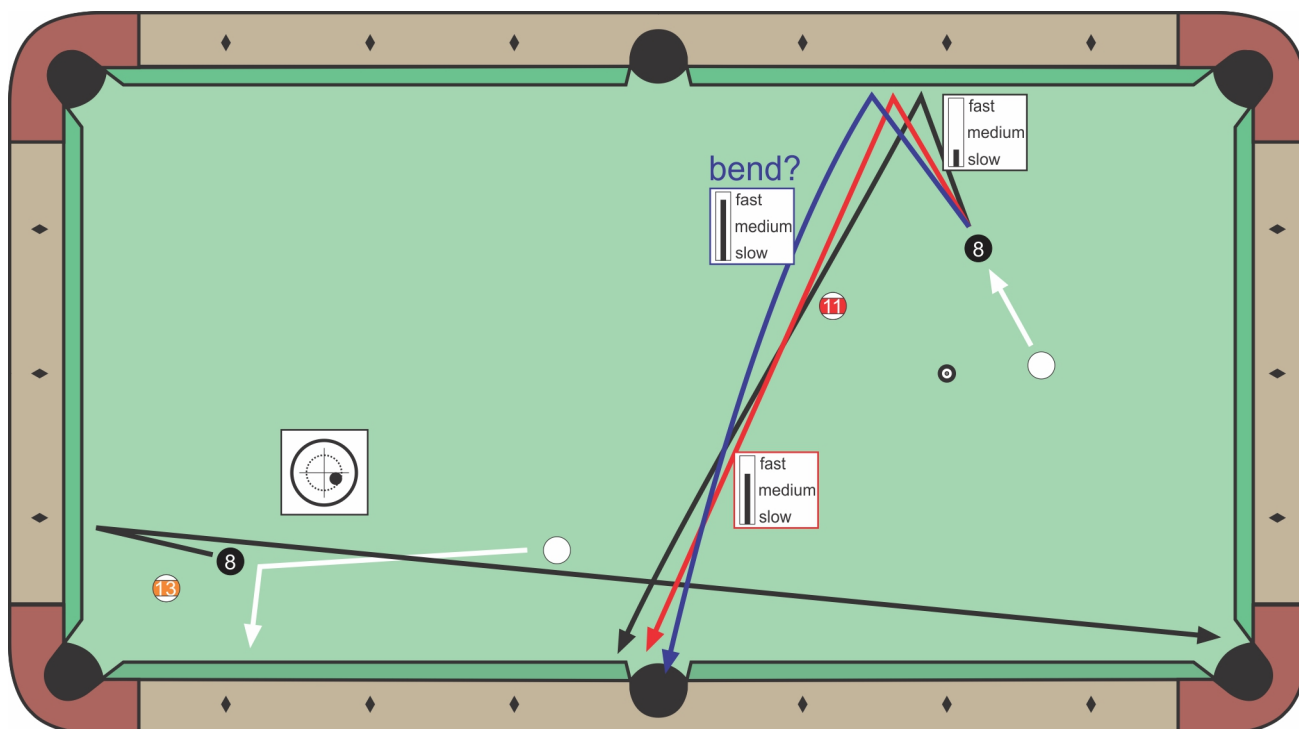
The shot shown in red in Diagram 2 is another fun kick challenge recommended to me by Bob Jewett. The goal is to send the CB over the foot spot and kick off the end rail into the corner pocket, and do so with the CB at the steepest angle possible. Now, don't cheat. The cue must be kept as level as possible. As demonstrated in [NV H.2](#), with an elevated cue, you can swerve the CB and easily get the line of the shot past the corner pocket. But again, that's cheating. Check out the video to see the best I was able to achieve on my table, and see if you can beat it. On most equipment, it should be possible to shoot from close to the corner pocket and still bring the kick back along a similar line through the foot spot. Notice how the CB path can curve backward as shown in the diagram. When you attempt the challenge, try to figure out what combination of speed, bottom spin, and sidespin works best for you.

Now let's look at the bank shots in **Diagram 3**. The straight-back bank at the bottom comes can be useful to know in the game of one-pocket, but it also comes up in other games. In [NV H.2](#), we show several variations of the shot for different CB and 13-ball positions. For the layout shown, the best approach is to transfer sidespin to the 8 to shorten the rebound angle (AKA, "twist the ball") and allow for easy clearance of the CB under the shot. Both the cut angle and right spin transfer left spin to the 8, which can easily change the rebound angle to make the shot go.

The cross-side bank shown in Diagram 3 is a good example of what can be done to change the rebound angle and path of a bank shot. As shown by the black path, a slow-roll bank that just clears the 11 goes just long of the pocket. In situations like this, shortening the angle with fast speed (and/or spin transfer) is a good option. As demonstrated in [NV H.2](#), it is easy to clear the obstacle and pocket the bank, as shown by the red path in the diagram. The path shown in blue illustrates what people refer to as "bending a bank shot." Recently, there has been a huge debate on AZB and Facebook about the feasibility and efficacy of such an approach. To help settle the debates, Bob Jewett and I posted a Bank Bend Challenge online (see [NV H.4](#)) in an attempt to:

1. See how much bend is possible.
2. Find out what types of shots and equipment are most suitable for bending.
3. Assess the difficulty and practicality of using bank bend effectively in a game situation where both accuracy and consistency are required.

We offered a \$2000 prize to help encourage people to participate. If you want to learn more and see the video entries, visit: [billiards.colostate.edu/bend.html](http://billiards.colostate.edu/bend.html).



**Diagram 3 Shortening, twisting, and bending(?) bank shots**

Disappointingly, we did not get many successful entries to our Bank Bend Challenge. Regardless, here is my conclusion after all of the debates:

**It is possible to bend banks short under certain conditions,  
but it is very difficult to do so reliably and consistently,  
and it is extremely difficult on some equipment and under some conditions.**

For more information, and to see examples of banks being bent short, see the “[bending a bank](#)” resource page in the FAQ section at [billiards.colostate.edu](#). As demonstrated and described on the resource page, sometimes people think banks are bending short when they really are not. A good example, shown in [NV H.3](#), is Freddy “The Beard’s” “bank benders” from his “Banks That Don’t Go – But Do!” DVD series. It might look to Freddy and DVD viewers that those banks are bending, but they are not.

The most important thing I learned from the Bank Bend Challenge is that you can’t always trust what you see in videos, especially by people who have questionable ethics and impressive video-editing capabilities. A user named “cleary” on AZB posted a video entry during our challenge that showed a ridiculous amount of bank bend. I knew it was a fraud, but there were quite a few users (AKA the “angry mob”) who were convinced the video was real, and they were attempting to bully Bob and I to “pay the man his money.” Fortunately, after encouraging “cleary” to come clean, he eventually explained to everybody how he cheated the video. The bogus video, along with a detailed explanation and illustration of how it was created, can be found on the Bank Bend Challenge page at: [billiards.colostate.edu/bend.html](#). If you haven’t seen this “cheat” video yet, check it out. It is impressive (and scary) what can be done with video-editing software.

As Freddy The Beard used to say: “Bank On Brother.” RIP Freddy. We miss you! And I wish you were still around to submit your best bank-bend effort to our challenge.

Good luck with your game,  
Dr. Dave



[NV H.2](#) – Bending, Twisting, and Stiffening Kick and Bank Shots

[NV H.3](#) – Pool Myth Buster - Bending Bank Shots

[NV H.4](#) – \$2000 Bank Bend Challenge

PS:

- I know other authors and I tend to use lots of terminology, and I know not all readers are totally familiar with these terms. If you ever come across a word or phrase you don't fully understand, please refer to the [online glossary](#) at [billiards.colostate.edu](http://billiards.colostate.edu).

*Dr. Dave is author of "[The Illustrated Principles of Pool and Billiards](#)" book and DVD, and co-author of the Video Encyclopedias of "[Pool Shots \(VEPS\)](#)," "[Pool Practice \(VEPP\)](#)," and "[Eight Ball \(VEEB\)](#)," and the "[How to Aim Pool Shots \(HAPS\)](#)" and "[Billiard University \(BU\)](#)" instructional DVD series, all available at: [dr-dave-billiards.com](http://dr-dave-billiards.com).*