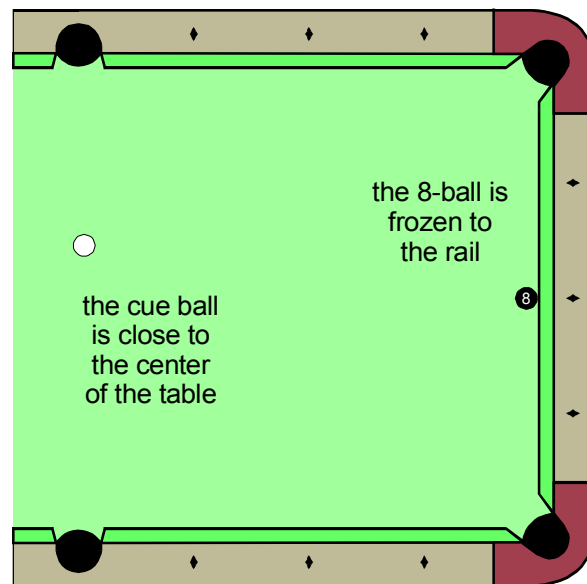*Note: Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, and technical proofs (TP), and all of my past articles, can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the article help you locate the resources on the website. If you have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

In my May article, I illustrated several options for the shot layout shown in **Diagram 1**. The 8-ball is frozen to the end rail, and the cue ball (CB) is near the center of the table. This is a fairly common end-of-game situation that can come up in 8-ball or 9-ball. This and similar situations can also come up mid-game in 9-ball, so it is important to think about and practice various options. In my May article (which you can view on my website), I presented an offensive rail cut shot option using natural English (see **NV B.11**), an offensive bank-shot option where a double kiss might be a concern (see **NV B.12**), a defensive kiss-back safety option (see **NV B.13**), and a basic defensive cut-shot option (see **NV B.14**). This month, I want to present and discuss a few more options discussed recently on the BD-CCB and AZB online forums.
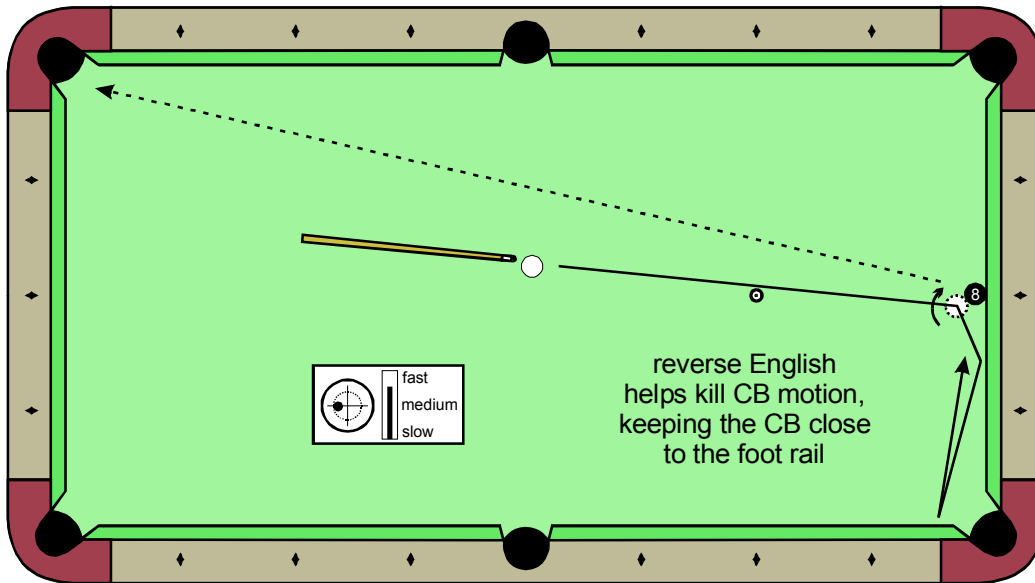

the 8-ball is frozen to the rail

the cue ball is close to the center of the table

Diagram 1 Shot layout

NV B.11 - End-of-game frozen rail cut shot offensive option
NV B.12 - End-of-game frozen bank shot offensive option
NV B.13 - End-of-game frozen kiss-back safety option
NV B.14 - End-of-game frozen cut shot safety option

normal video

Diagram 2 shows an alternative to the bank shot shown in my May article. With the original bank shot option (see NV B.12), where the 8-ball is banked in the bottom left corner pocket, there is a chance for a double kiss depending on the specific cue ball position. Diagram 2 shows a reverse bank shot offensive option, where the 8-ball is banked straight back to the top left corner

pocket. **NV B.15** demonstrates the shot, provides some advice, and discusses several concerns. This bank might be more difficult for some people to aim, because the cut angle is larger than with the original bank, but a double kiss is not as much a concern. However, at slower speeds, a double kiss is possible with this shot also (see the example in the video). Faster speed helps the 8-ball compress into the rail cushion more, allowing the CB to easily clear the double kiss. As shown in Diagram 2, left (inside/reverse) English helps kill the CB's motion, keeping the CB close to the foot rail. This helps create separation between the CB and 8-ball in case you miss (see the examples in the video). The English also helps prevent a scratch by preventing the CB from moving around the table.
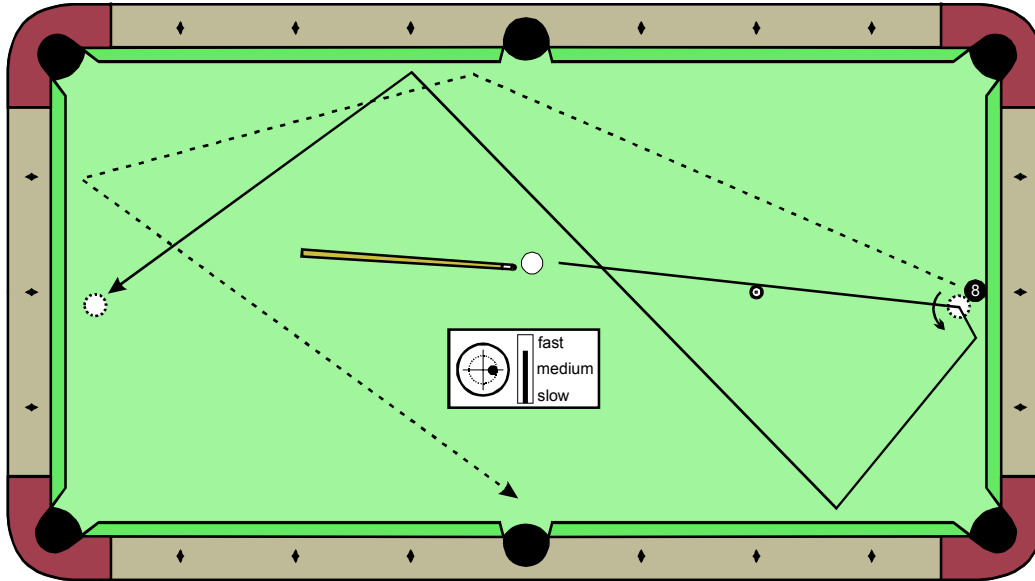

fast
medium
slow

reverse English
helps kill CB motion,
keeping the CB close
to the foot rail

Diagram 2 Reverse bank shot offensive option

normal video

NV B.15 - End-of-game frozen reverse bank shot offensive option

Diagram 3 shows a three-rail bank two-way shot option. This shot might be more difficult than some of the other options presented here and in my May article; but with a little practice, it might be worth considering. The main goal of the shot is to bank the 8-ball three rails into the bottom side pocket. A secondary goal, in case you miss the shot, is to leave a tough shot for your opponent. That's why it is called a two-way shot ... it is both an offensive and defensive shot, depending on the outcome. With a miss and good speed, it is fairly easy to leave your opponent an even more difficult shot with fewer options; although the speed of the shot is important (see several examples in the video). The ideal miss (e.g., if the 8-ball misses just past the side pocket) would have the CB come to rest close to the center of the head rail, with the 8-ball coming to rest close to its original position. A shown in Diagram 3, right (outside/running) English helps send the 8-ball in the desired direction and helps bring the CB back up table.
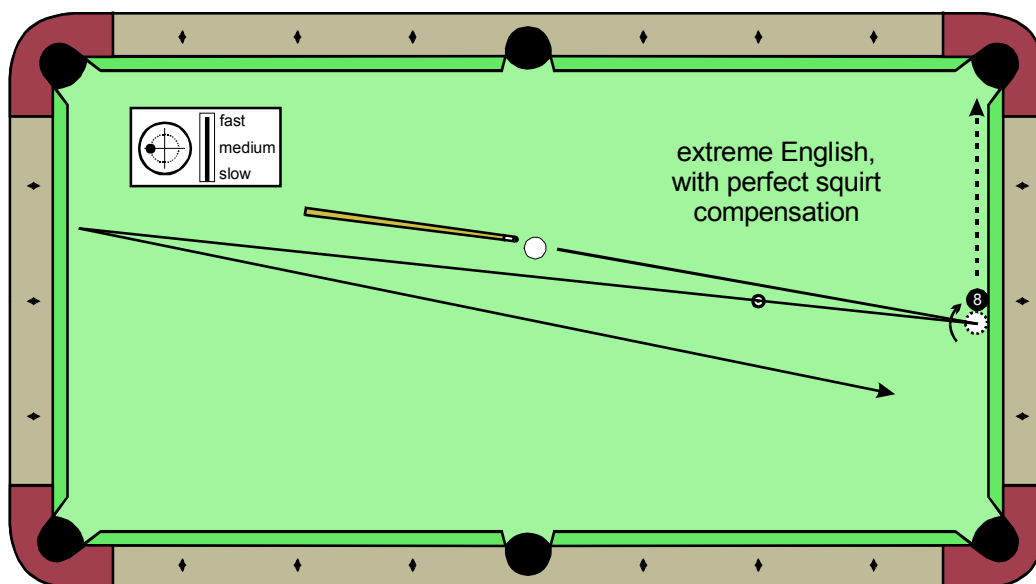
Diagram 3 Three-rail bank two-way shot option

normal video

NV B.16 - End-of-game frozen 3-rail two-way shot option

    Diagram 4 shows a final "option" called a reverse rail cut shot. A demonstration of this shot can be viewed via a link in the "Online Video Collection" section of my website, under "Trick shots" (see the Joe Tucker link under "impossible shots"). The reverse rail cut is the first shot in the video. Obviously, this "option" would not be considered in actual play ... it is much too difficult, with too much risk (e.g., there is a possibility of fouling by missing the 8-ball, or selling out to your opponent if you don't pocket the ball). It's just a show-off proposition shot, made a little easier by Joe's fancy stroke-guiding laser gizmo. If stroke-guiding laser gizmos were legal, pool would be a much easier game. I'm glad gizmos like this are not legal in actual play.

Diagram 4 **Laser-assisted extreme cut reverse rail-cut option**

Which option would you choose if you were faced with the shot in Diagram 1? You should think about it some and then practice all of the options above and in my May article ... and then think about it some more. Personally, my favorite option is the two-way shot in Diagram 3 and NV B.16. However, I'm not sure I would use it in a game situation, unless I was playing a lesser player. Although, if I were playing a lesser player, I would probably choose one of the defensive options from my May article (e.g., the cut-shot safety in NV B.14 or the kiss-back safety in NV B.13) instead. If I were playing a much better opponent, I still like the offensive running-English rail shot cut option in NV B.11. With a tough opponent, I think it is better to try to win the game rather than give him or her the chance to make a good bank shot or play an even better safety on me. Rail conditions and consistency, and pocket "size" can also play a big part in the decision. The exact CB position might also be important in the decision. For example, the running English rail cut shot in NV B.11 is much easier with more approach angle into the rail (i.e., if the CB is farther from the center of the table), and gets a lot tougher as the CB gets closer to the center of the table.

I hope you now have a better awareness and appreciation for end-of-game options when the final ball is frozen to a rail.

Good luck with your game,
Dr. Dave

Dr. Dave is a mechanical engineering professor at Colorado State University in Fort Collins, CO. He is also author of the book, DVD, and CD-ROM: "The Illustrated Principles of Pool and Billiards," and the DVD: "High-speed Video Magic."