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 <u>billiards.colostate.edu</u>. 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: <u>dr-dave-billiards.com</u>.

This is the eleventh article in a series based on the "<u>The Video Encyclopedia of Pool Practice (VEPP)</u>," a five-disc instructional-DVD collection I recently created with fellow BD columnist Bob Jewett. VEPP is an organized and methodical training program and pool workout. It teaches you how to develop, assess, and track progress of skills for all facets of your game. An outline of the entire VEPP series along with video excerpts from each DVD can be viewed online at: <u>dr-dave-billiards.com/vepp</u>. Last month, we looked at a useful kick shot aiming system from Disc IV: "<u>VEPP IV- Banks, Kicks, and Advanced Shots</u>." This month, we'll look at some bank shot drills and effects.

There are many different "systems" commonly used to help aim kick and bank shots. If you want to learn about them and see video demonstrations, visit the "bank and kick shot aiming system" resource page in the FAQ section of my website. Regardless of what system you might use, or even if you just aim by "feel," you need to be able to make adjustments as the cut angle of a bank changes. The drill illustrated in **Diagram 1** is designed to help one develop a feel for all of the important effects. Position the object ball (OB) one diamond above and out from the side pocket, and start with the cue ball (CB) on the table centerline two balls down from the OB (at position C-1). With this bank shot, the CB imparts counterclockwise (right) spin on the OB causing it to rebound short of what might be predicted by a typical bank-shot aiming system. Therefore, you need the cut the OB more than the system might predict. For the line of aim shown in **Diagram 1**, many bank-shot aiming systems (e.g., equal-angle mirroring) would predict the OB would rebound beyond the pocket, but the induced spin shortens the bank quite a bit. Practice this first shot until you develop a solid feel for how much you need to adjust your aim to compensate for the induced spin.

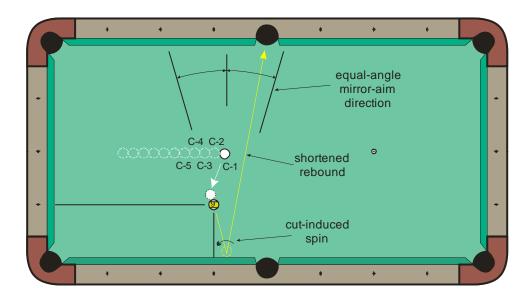


Diagram 1 Bank shot cut-angle effects drill

After succeeding with the CB position C-1, move the CB up table one ball width (to position C-2) and try again. Then continue to advance up table. As the cut angle decreases from positions C-1 to C-4, there will be less cut-induced spin, and you won't need to adjust your aim as much. When the CB is lined up straight

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along the ideal aim for the bank shot (e.g., in position C-4), you won't need to adjust at all because with no cut angle, there will be no cut-induced spin. As you advance the CB farther up table (positions C-5 and above), the CB will be cutting across the OB path, creating an inside cut, and clockwise (left) spin will be induced on the OB. This will cause the OB to bank long of the direction predicted by most systems. To adjust, you will need to aim for a thinner hit on the OB. Induced spin is greatest at close to a half-ball hit (30° cut angle). With smaller cut angles, there will be less induced spin. There is also less spin for cuts much thinner than a half-ball hit. Speed also reduces the amount of induced spin at the larger cut angles, which will require less aiming adjustment. For more information on and demonstrations of these effects, see the "spin transfer" resource page in the FAQ section of my website. Again, work with the drill enough to develop a feel for the induced-spin and speed effects so you will be able to adjust appropriately in different game situations.

As demonstrated in video **NV C.14**, you will need to be able to judge when a double kiss is possible and use speed and/or english to help avoid it. The "double kiss detection and avoidance" section in the "bank and kick shot" resource page describes and demonstrates some useful systems for dealing with potential double kisses. **NV C.14**, in addition to showing the drill above, also describes and demonstrates another drill where you bank cross corner instead of cross side. With cross-corner banks, there are two zones where double kisses are possible and must be addressed. The first zone is where the bank is fairly straight, with a slight cut on the inside (as with the cross-side banks). The second zone occurs when cutting across the line of the shot and the double kiss is likely after the CB rebounds off the end rail. Please refer to the video to see how to detect and avoid these situations. Then practice both drills. The only way to get better at bank shots is to practice them until you develop reliable intuition for how much aim, speed, and spin adjustments are required in different situations.

**Diagram 2** and **Diagram 3** show a fun and challenging bank drill made famous by Eddie Taylor, a bank-pool legend. The goal is to bank the OB into each of the six pockets with ball in hand for each shot. The OB is frozen to the side cushion at the 2<sup>nd</sup> diamond. The first three shots are simple 1-cushion banks. The remaining three require banks off two or more cushions, and they are more difficult. One purpose for this drill is to give you practice learning how to make adjustments based on what you see since you typically will not make these shots on the first attempts. These adjustments will help you develop and improve your ability to judge different bank effects at different angles, spins, and speeds. (FYI, I have a summary and demonstrations of all important kick and bank effects in the "effects and factors to consider" section on the "bank and kick shot" resource page.) The drill also helps you learn to detect and avoid possible double kisses when banking a ball frozen to cushion. The diagrams show example CB positions and paths to create banks to each pocket, and online video **NV C.15** demonstrates alternative paths for some of the banks. Give the drill a try and keep track of how many attempts it takes you to pocket each of the six banks. Record the numbers so when you try the drill again in the future, you can track your improvement over time.

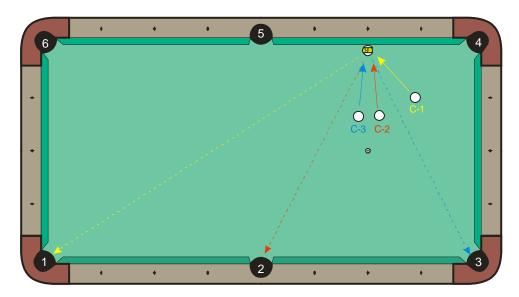


Diagram 2 Bank to all pockets challenge drill - pockets 1-3

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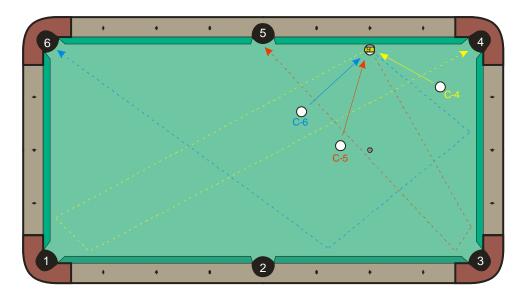


Diagram 3 Bank to all pockets challenge drill - pockets 4-6

I hope you are enjoying and benefitting from my series of articles featuring drills from the "<u>Video Encyclopedia of Pool Practice (VEPP)</u>." Example clips from Disc IV can be viewed on the <u>VEPP website</u> or at <u>billiards.colostate.edu</u> under **NV C.13** through **NV C.16**. Next month, we'll look at some useful jump shot drills and advice, also from the 4<sup>th</sup> DVD.

Good luck with your game, Dr. Dave



NV C.13 – Shallow-angle one-rail kick drills, from VEPP IV
NV C.14 – Bank shot cut-angle-effects drills, from VEPP IV
NV C.15 – Bank-to-all-pockets challenge drill, from VEPP IV
NV C.16 – Jump shot drills, from VEPP IV

## <u>PS</u>:

• 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 <u>online glossary</u> on my website.

Dr. Dave is author of the book, DVD, and CD-ROM: "<u>The Illustrated Principles of Pool and Billiards</u>," and co-author of the DVD Series: "<u>Video Encyclopedia of Pool Shots (VEPS)</u>" and "<u>Video Encyclopedia of Pool Practice (VEPP)</u>."

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