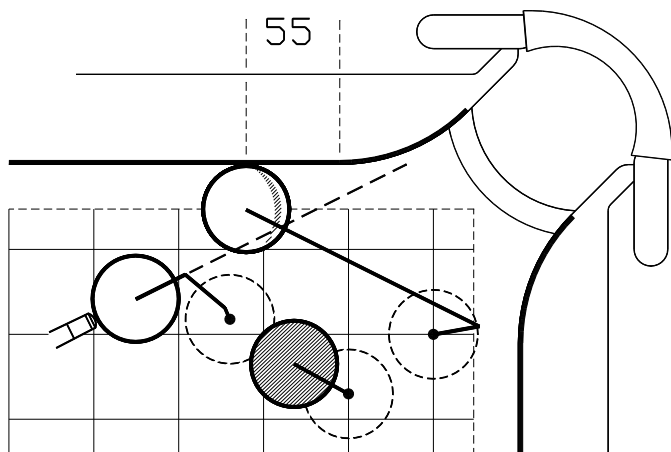


TURNING THE CORNER

Most billiards books mention a few ways of turning the corner during nurserys. Murt had drawings of 31 ways, unfortunately Murt's drawings were sold after Murt went back to New Zealand & they ended up at the tip during a garage clean-out. Let's see how many we can kum up with. We start by looking at 4 known turns.



KISS-OFF TURN

TURN 1 This iznt the best pozzzy for a turn, u wouldn't set it up intentionally, but it duz kum up. It iz an eezy turn if u know kiss-offs. The red iz well away from the yellow's path az it crosses over to the other cushion. Aim very thick on yellow, & hit hardish, & cannon on red.

HERE'S WHAT WE WERE THINKING FOR TURN 1

1. We can see that the pozzzy of the red iz so good that we don't need any side-spin or soft-screw. A plain ball kiss-off the yellow will allow the qbball to contact the red almost full-ball, & send it on a nice line to meet the yellow.
2. We know that the red looks too wide, but it iz perfikt, it always looks too wide.
3. We know that the contact on yellow duznt affect the kiss-off-angle of the qbball. This iz about 40° (8 in 10) for all kiss-offs (when the qbball-to-yellow angle iz 40° or less). So we know that we will contact red full in the guts no matter how we contact the yellow.
4. About the only way of stuffing the shot up iz to hit the red too hard, in which case it will go ahead of the yellow & leev us in trouble az far az nurserys go. We are aware of this trap, & we know that we havta aim thickish on the yellow, to keep the red quiet.
5. After the double-kiss, the rebound-angle for the yellow iz sometimes az narrow az 5 in 10, no matter how thick or thin we contact the yellow. So this givs us a free hand for the contact on yellow.
6. Koz we need to send the yellow a long way (150mm), & koz the red haz to go only 30mm, we need to hit yellow almost $\frac{3}{4}$ ball.

LEEY The leev woz good, partly throo luck, the yellow caught a bit of the right-jaw. The yellow woz only 55mm from the left-jaw (center of ball to end of kurv), which woz too close, we should hav turned a few mm earlier (ie further from the left-jaw). In 1A the qbball can be placed almost anywhere, and/or the yellow can be placed 3mm off the cushion, with little difference. In most pozzys the yellow can be 5 or 10mm off the cushion & u will still get an honest double-kiss etc, az per 1A, with little need for compensation. In the grid shown in 1A, each square iz 50mm.

KISS-OFF TURN ZONE

TURN 2

Here we analyze Turn 1. The yellow's kiss-off angle is 5 in 10 (for almost any contact), & hence the yellow will catch the jaw if the kiss-off turn is started less than 80mm before the left-jaw. So, u should turn before the yellow encroaches into the cross-hatched zone. The qball's kiss-off angle is 8 in 10 (for almost any contact). So, these 2 angles are fixed, which makes such Turns eezy. And u hav the luxury of choosing a contact on yellow that will giv the yellow & qball (& red) the correct share of the pace.

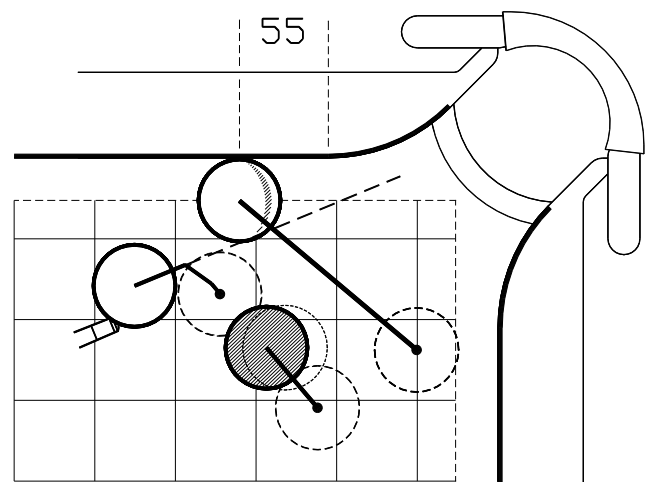
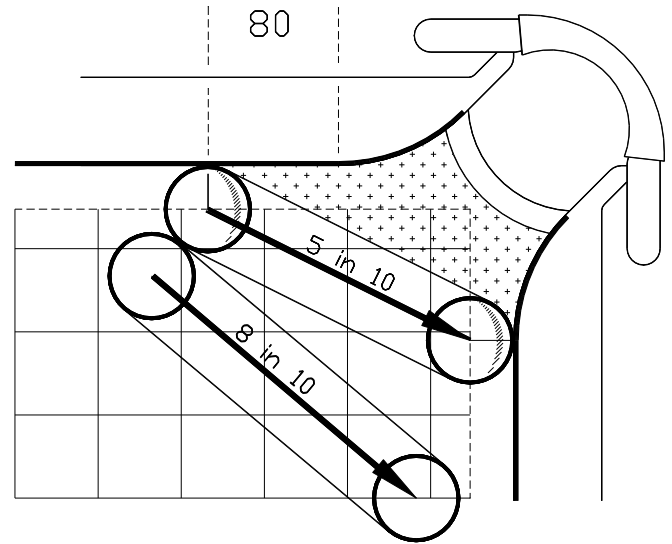
SCREW KISS TURN

TURN 3

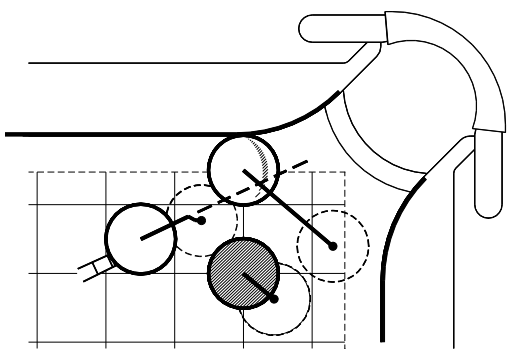
Here we hav the 1 pozzy, xcept that the red iz on a bad angle, about a quarter-ball left of its Turn 1 pozzy (dotty ball shown). So now the red iz wider than the friendly (8 in 10) angl that we had in Turn 1. So the standard 8 in 10 kiss-off-angle iz not enuff to bump the red into good pozzy. The simplest way of getting the qball to kum off yellow at the wider angle iz to uze some soft

screw (plus running-side). We are lucky to be this close to yellow, koz a hardish screw would send the yellow too far. But there iz a bonus. Koz we are uzing screw, the qball duz not get a full double-kiss (perhaps nil) on yellow, hence the yellow won't take a 5 in 10 rebound-angle, it rebounds wider. This iz good news, koz it makes sure that the yellow duz not catch the right-jaw (az u kan see). But we hav to be careful, now that there iz no double-kiss the yellow will rebound much quicker, so we hav to hit it softer than u would think (much softer than in Turn 1). We could hav uzed soft screw in Turn 1, to miss the jaw, to get a similar leev to Turn 2. So, if the yellow iz inside the 80mm a soft-screw kan save the day. When u uze screw it duznt meen that u get a wider kiss-off-angle than the 8 in 10. But, the yellow's rebound-angle kan be much wider than the 5 in 10. Koz when u uze screw u lessen the amount of double-kiss, & the yellow iz less restrained.

YELLOW'S REBOUND Refer to the ch82 KissOff Angles, & ch83 KissBack Angles. When the qball-to-yellow angle iz less than 40° the yellow's rebound-angle kan be widened (uzing screw) for a similar inkreec in the qball's kiss-off-angle. And, when the qball-to-yellow angle iz more than 50° , the qball's kiss-back angle kan be much widened (uzing screw) for zero inkreec in the yellow's rebound-angle.

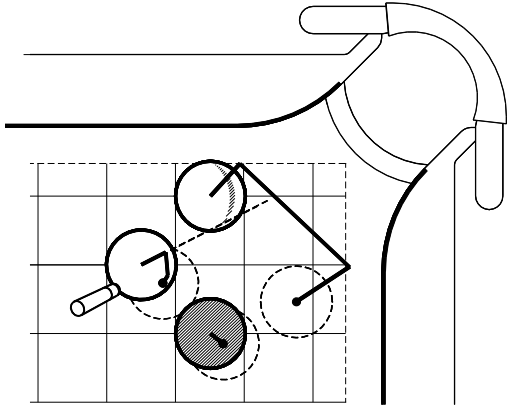


TURNING 4 SCREW



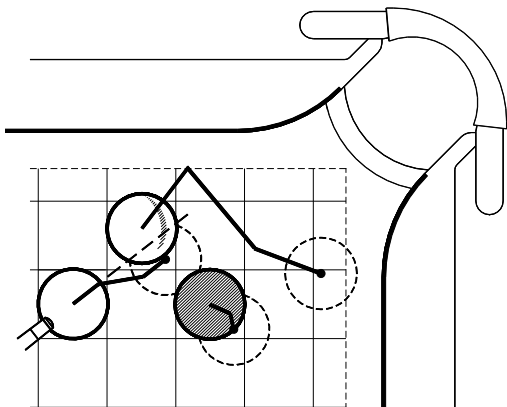
This shows how soft-screw can bring the yellow out to useable pozzys, even when it is a little inside the left-jaw. Here we hit at 5 o'clock & contact the yellow three-quarter ball. The soft-screw actually ends up being soft-stun, but that is enough to rob much of the double-kiss on yellow, & thus give it a wider angle to escape from the jaws.

TURNING 5 PIQUÉ



Here we can use soft-screw to get a fair leev in one shot (not shown). But a piqué gives a better leev (shown) with less effort & less risk. Hit down at a 45° angle. You don't have to hit much below center, but a little right-side seems to help. Actually, the pace is easier to judge with piqué also, strange as it seems.

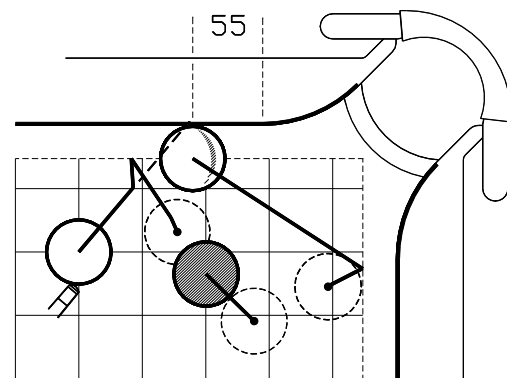
TURNING 6 FOLLOW



I only put this pozzys in coz I had some space at the bottom. Here we play three-quarter ball on yellow with lots of topspin. The leev would have been a bit better if the yellow hadn't kissed the red.

What most of these turns show, is a general principle. To best prepare for a turn it's best to open up the gap between the red & yellow. And usually best to have the qball in between'em.

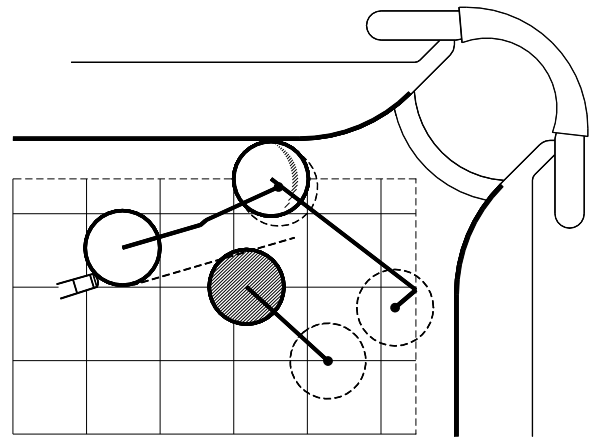
TURNING 7 CHECK SIDE



Here the yellow is in Turn 3 pozzys, but the red is even further west, & the qball is further from yellow. A soft-screw (as for 3) is possible, but difficult, coz of the long-range the yellow would have too much pace. So here we play thickish on yellow, & onto the cushion, with lots of right-side. The yellow goes to nice pozzys off the side cushion. But in fact, here we can put yellow almost anywhere we want. Coz there is no double-kiss. So, the thicker we contact yellow the wider its rebound-angle from the cushion. For example, if we hit the yellow three-quarter ball, the yellow would go directly to good pozzys without touching the side cushion, but the qball wouldn't reach the red unless you put the yellow into orbit. This cushion cannon can be played when the yellow is a little, or a lot, off the cushion, no need for more drawings of such pozzys. The only real difficulty here in Turning 7 is that coz of the angle you have to reach out-&-back, remember to chalk-up. Actually, as it happens, you can play this cushion cannon in 2 & 3 if you want, & it is probably on for lots of other pozzys. But it is always more difficult to judge & control accurately so you should only use 7 as a last resort.

TURNING 8 RED FIRST

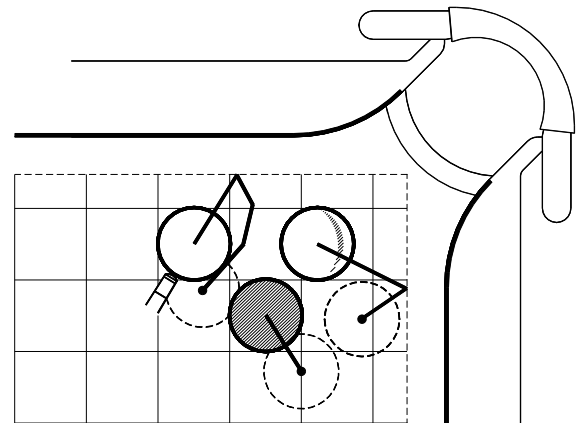
Here we play red first, thinnish, with right-side, landing on the yellow as thickly as possible. The right-side throws the yellow to the left, to widen the rebound-angle, to miss the right-jaw, which it almost does. The leev is perfect. If you set 8-ish pozzies up, you might see 2 optional (more difficult) ways of turning. (i) (not shown) Just hit yellow first, with lots of **RIGHT-SIDE**, just missing the red on the way, the qball then hits the red.



(ii) (not shown) The same shot as (i) but using **SCREW** instead of side. I think that the first seven ways of turning the corner are the most useful. The next four praps would be accidental, arising from some mishap. I have to start digging deep into old diaries here. Arithmetic might help. Let's see. We have done YYR, YR, YCR & RY. We could add CYR, RCY & YRRYYR.

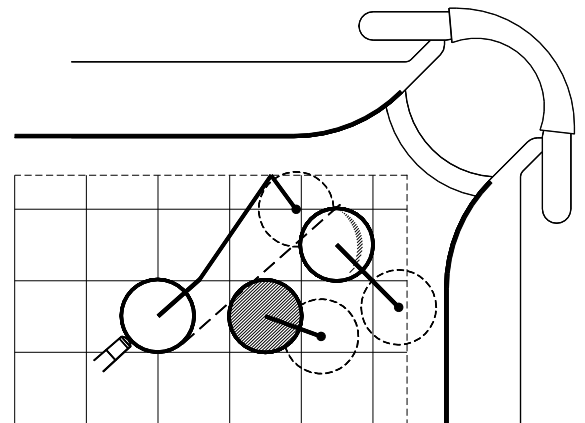
TURNING 9 CUSH-FIRST

Here we play the cushion first cannon. This kind of shot is hard to judge. Here it is about the easiest pozzie you will ever get. We play it hardish & get a perfect leev. In reality you wouldn't take the risk. You would play the same shot but softish & then take another one or two shots to herd the balls to about this leev.



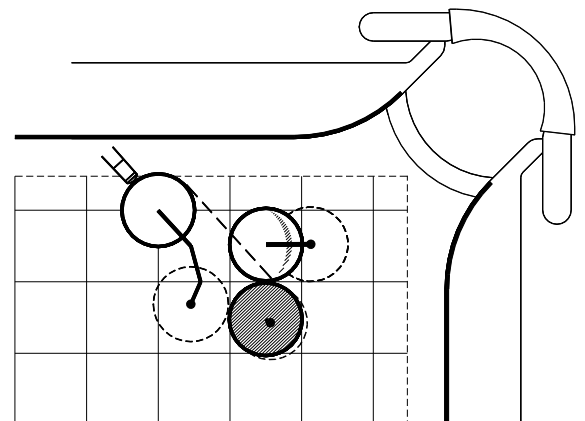
TURNING 10 CUSH-2ND

Here we play red-cushion-yellow. This kind of shot is hardish to judge. But 10 is about the easiest version we can get.



TURNING 11 HERDING

There is no rule saying you have to turn in one shot. All the Turns shown in books are 1-Shots. But 2-Shot & 3-Shot turns might be all you have when the pozzie is poor. Here we play quarter-ball on yellow, to land softly on red, to leev another thin shot, red to yellow. After that we can play yellow to red again, by which time we should have good pozzies. Or we might have to throw in another red to yellow. So we slowly herd the balls to where we want them. A clumsy shot might leev a cover, in which case we would need a cushion-first cannon. In 11, if the red & yellow weren't touching, we could simply run-through yellow, to get good pozzies in one shot.

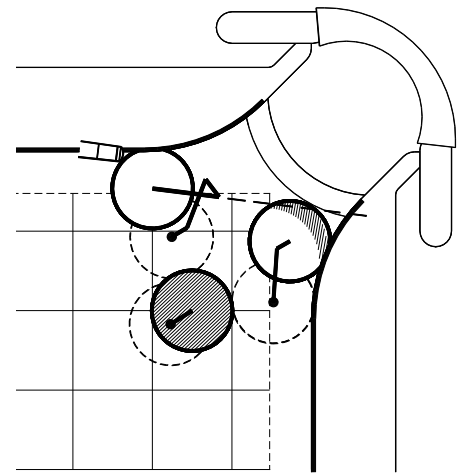
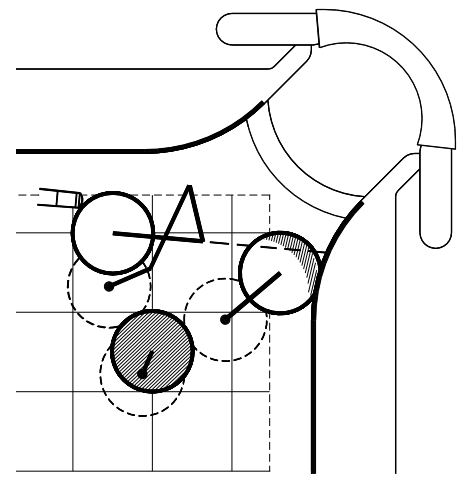
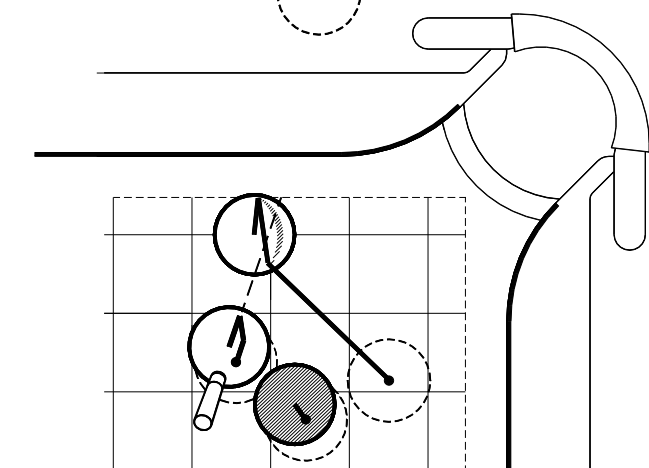
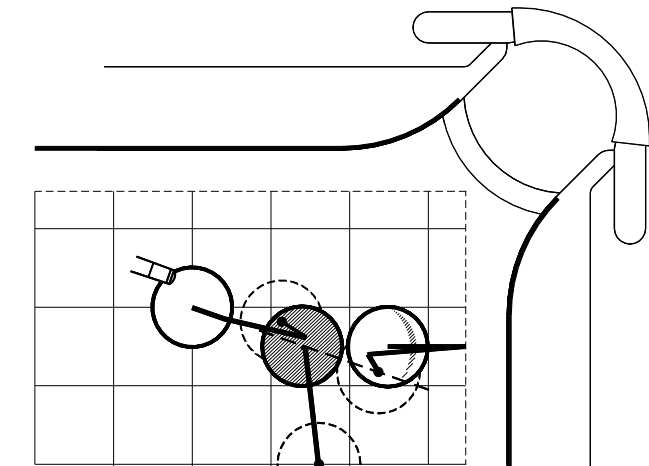
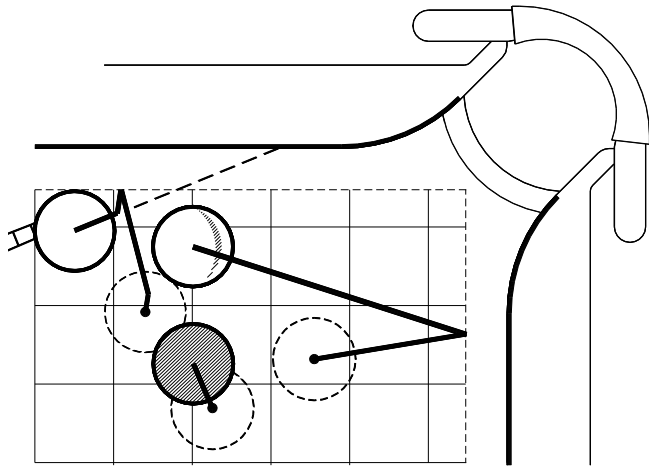


TURNING 12 TROUBLE

The yellow iz in trouble in the jaw. A three-quarter ball contact on yellow, to double-kiss, with lots of left-side, will bring the yellow out to a better pozzy, az shown. Sometimes the yellow kisses the red. Uzually u kan keep this kiss to a minimum by aiming thicker on yellow.

TURNING 13 DEEP TROUBLE

Here the yellow iz in deep trouble in the jaw. It's amazing how a thick half-ball with max left-side kan bring the yellow out to good pozzy, az shown.



TURNING 14 SCREW

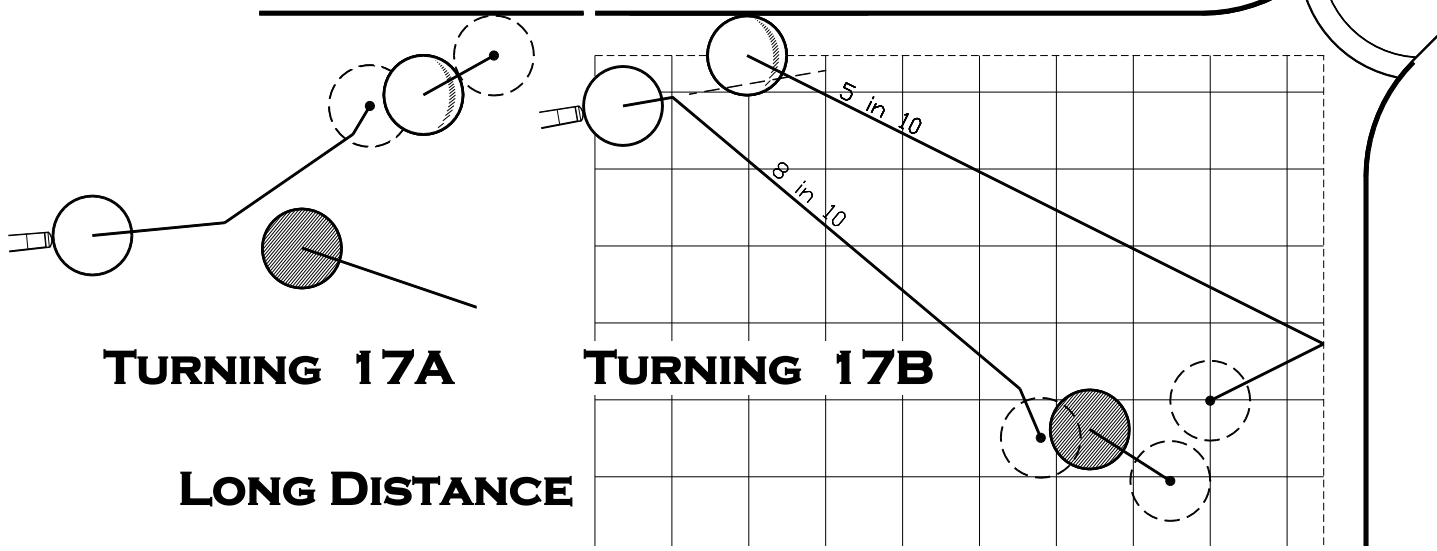
Here we uze some screw & left-side.

TURNING 15 PLANT

A cannon off the top-cushion iz eezy. But here we show the optional plant-kiss cannon. Its not really a turn, koz we hav already turned, its more a repair job. We uze left-hand-side to clear the red away. Its worth praktising varyations of this pozzy. The key iz to make sure that the red clears away, not too far, but don't get too cute koz the red kan block the cannon.

TURNING 16 LINE NURSE TURN

Further to Turning 5 (a piqué turn). I had to play a varyation the other day, so i stuck it in my diary, & here it iz. I played it like a Line-Nurse, uzing the qbball to shield the red from the rebounding yellow. I played a piqué, but u might uze soft-screw if the pozzy iz a bit eezyer. The second kiss on the qbball also helps to steer the yellow into nice pozzy.



TURNING 17A

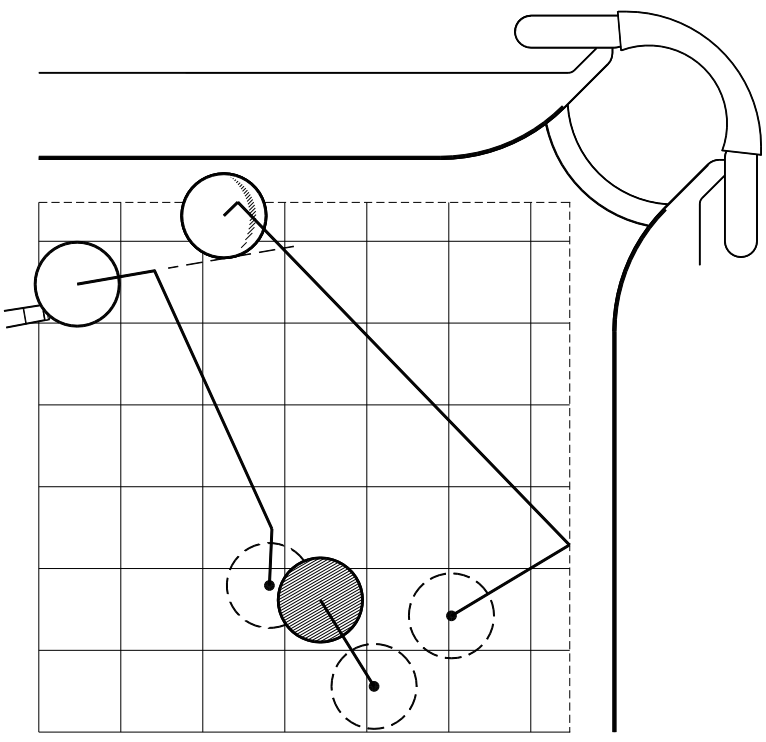
TURNING 17B

LONG DISTANCE

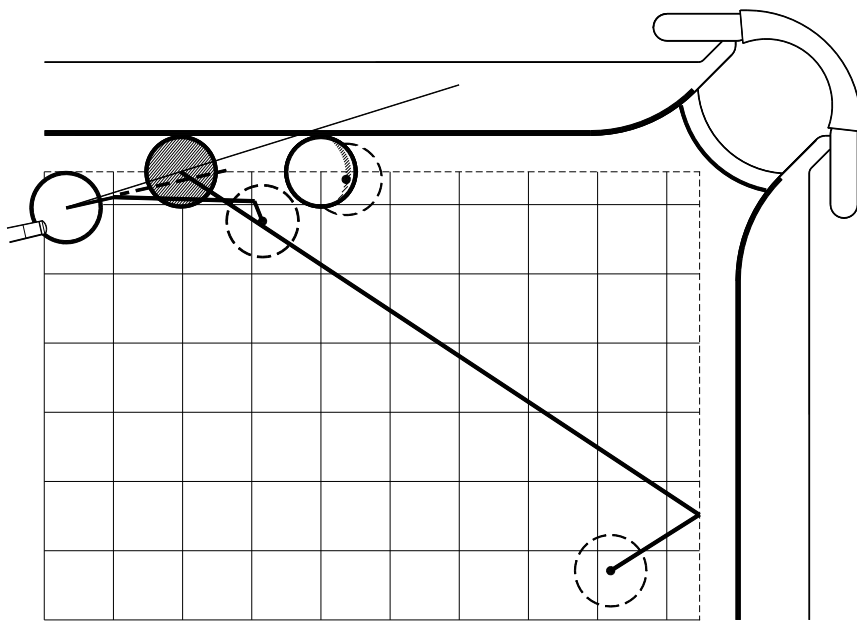
Here we turn the corner from the quarter point of the top-cushion, a kiss-off gather makes it eezyer. **17A** Here we see the opportunity to set up a gather-turn. We play a thick half-ball on red to leev the pozzy shown in 17B. **17B** We play a very thick half-ball on yellow, to giv it enuff pace to kum off the side-cushion. On this angle, a half-ball on yellow would leev the yellow behind. A thick half-ball would result in the qball & yellow going along shoulder to shoulder. While playing 17A, we were careful not to leev the angle from yellow to red in 17B too narrow. If it iz wider than the natural kiss-off-angle, we kan uze some stun, but if it iz narrower we are stuffed. Also, it iz best to keep the qball close to the cushion, not too close, not less than a half-ball off. And not too far off the cushion, the attack angle on yellow should be less than 45°. The yellow iz best frozen to the cushion, but up to say a quarter-ball off iz ok.

**SCREW GATHER
TURNING 18**

In this pozzy we hav set up a gather-turn needing a half-ball screw-gather. It iz eezy to judge these kinds of shots, az long az the range iz this close. Some running-side helps. It iz best if the yellow iz frozen on the cushion, or well off the cushion, ie say more than a half-ball. Here it iz a quarter-ball off, so we might get a slight double-kiss. A non-welcome kiss might spoil the leev. Az i sed, better to be well off, so that there iz no chance of a kiss, or frozen, so that there will be a dependable partial-double-kiss.



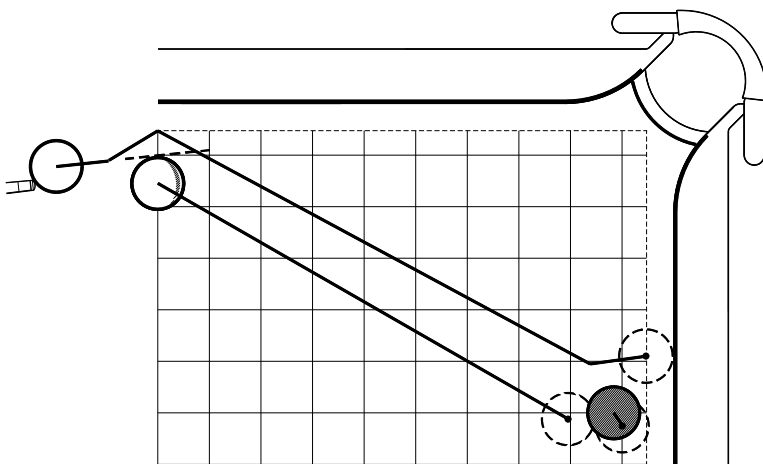
TURNING 19 COVERED



Here we are covered, but the pozzly iznt az bad az it looks. Not only kan we score the cannon eezyly, but there iz a chance of a turn-gather next shot. When the red iz frozen on the cushion, az shown, it will rebound at a wider angle than otherwise. Here the thin long line passes throo the center of the qball & red, & it passes not very wide of the yellow. But if u hit the red firmly on this line, it will not hit the yellow az thickly az u might think. It will hit

the yellow thinnish & the yellow will not moov far. So, if we hit the red right-of-center it should miss the yellow. Here in 19 we aim just right of center on yellow, with top & right-side, & we get the leev shown. The right-side givs the red a widish rebound, & i think that it kills a little of reds pace, & i think that it reduces the ball-to-ball friction & thus let's the qball follow throo more eezyly (when i say it reduces the ball-to-ball friction, i meen the component of friction affecting follow). This kind of shot haz to be played much harder than u might think, koz we need to bump yellow ahead to giv some space for out next shot, which will be a turn-gather. This turn-gather will uzuually need screw or even piqué. In fact, u karnt xpect to leev a nice friendly turn-gather for yor next shot if the balls are nearer to the pocket. The red would rebound too far west. It might leev something else, but not a friendly turn-gather. So, the pozzly shown iz about az near to the pocket az will allow. The red-to-yellow gap shown here iz one ball. U kan get a follow cannon of this kind when the balls are closer together, but, koz of the angle & contact needed, the red will go into orbit. And a similar shot & seqence kan be ok when the red & or yellow are off the cushion also.

TURNING 20 RUNNING TURNS



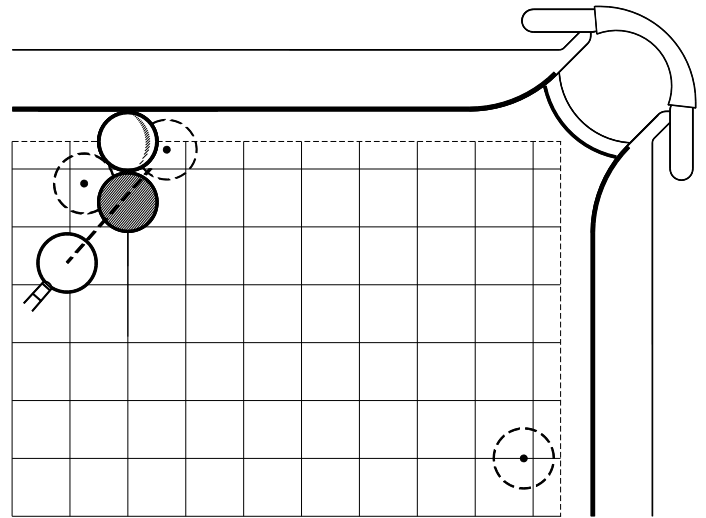
I woz praktising doing a circuit of the table, & i woznt going very well, az uzual. But, i woz pretty pleezed, koz i had turned 3 corners well, & i had passed one midpocket well. I made a mess passing the other midpocket, i bashed the balls just to get past, & i woz left with pozzly 20, except that the balls were actually much further apart. I almost

picked the balls up, but then i saw the abov shot, & to my surprize i got it first pop (it woz much more difficult than this). The 3 balls then formed a cluster next to the top-cushion. Here in 20 i had to uze tons of right-side, to help the running of the qball, to avoid having to hit the yellow too hard. The window for this kind of shot iz not huge, but uzing running-side to the maximum kan help. The necessary contact on yellow iz the key, this will determin whether a good gather iz on. The cannon itself iz eezy.

The laughter comes when Lindrum gets the three balls almost touching at the top-of-the-table & proceeds to make cannons almost as fast as the referee can count. The whole journey of his ball is often not an inch. It touches the other two so delicately that you scarcely hear it & they scarcely move. On he goes along the top of the table half an inch or an inch at a time while the score mounts --51-53-55-57-59-61-63, on and on so that he will score a hundred in the time an ordinary man would take to chalk his cue. When he comes to the corner he has to go warily, or he will pocket one or other of the balls & spoil his position. Sometimes he will stop as long as 10 seconds to think how he is going to get round the corner. Then comes a master stroke, & off he goes down the side of the table --65-67-69-71-73-75. It all looks so ridiculously easy that you have to laugh.

TURNING 21 PLANTED DRIVE

Here u might get a cannon off the cushion izing right-side. U might get a turnabout off the side-cushion, izing left-side, praps thinning red first. U could write a chapter on these kinds of pozzys, & they kum up lots. Here we show how u would play a planted kiss-off drive, to set up a long-range gather-turn next stroke. Aim just left of center on red, hard, with top. The red ends up double-kissing over to the side cushion, where shown. This allows a gather-turn next shot (not shown), probably needing a bit of stun. The run-throo cannon iz eezy nuff, but the exact qball contact on yellow iz uncertain. U won't always get the perfikt leev shown, but u won't get a bad leev, not if u hit hardnuff. At the short range shown, it will be difficult to avoid a double-hit foul. Chalk-up, & don't try to uze much top koz u will miscue.

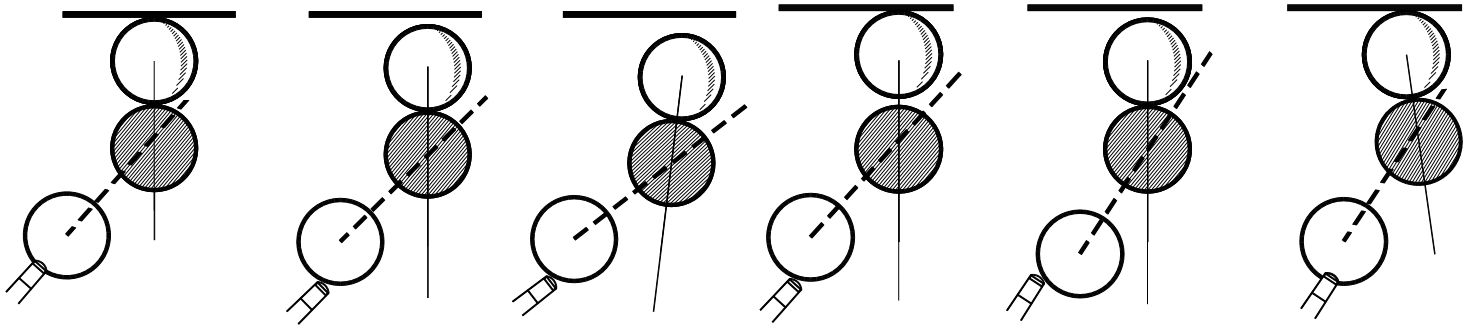


THE TIMES, 14 FEBRUARY 30

Playing the close cannon game with great accuracy, Lindrum made a run of 69 cannons, & after a little open play he made another run of 121 cannons. In the second of these runs Lindrum showed again that complete mastery he possesses in this phase of the game. He played the balls along the top cushion, but when he reached the left top pocket he experienced considerable difficulty in keeping the balls in position. He could have potted the red, but he preferred to keep the cannon position.

To do this he had to play the first object-ball onto the shoulder of the pocket, but he did this very cleverly twice before he could secure a really favourable position again.

When the break had reached 520 Lindrum missed an awkward middle pocket loser, but McConachy was unlucky, & had little chance again of scoring.



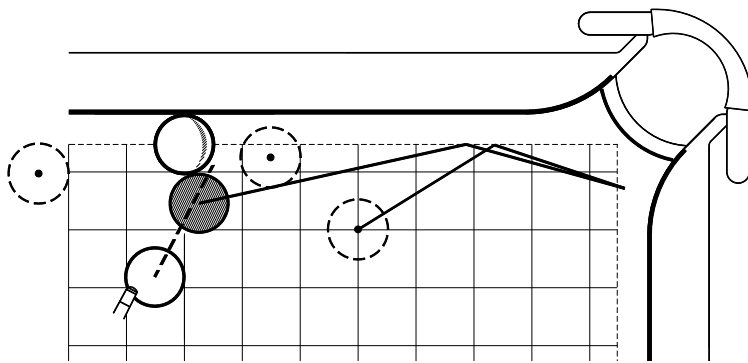
TURNING 22 ABCDEF PLANTED VARIATIONS OF 21

B The yellow is a little off the cushion. A cannon is easy, but to get the good turn pozy we need to use right-side to hold the red up, to get a bigger kiss off the yellow.

C The yellow is further off the cushion. A cannon is easy, but to get the good turn pozy the yellow-to-red line needs to be on an angle, as shown. We aim at the center of red with right-side. The right-side holds the red up, to get a bigger kiss off the yellow.

D There is a small gap between red & yellow. We aim just left of center, with right-side. **E** The cue ball is further east than in D. We need some left-side to clear the red, otherwise the cue ball will get a double-kiss on the red, & miss the cannon. If the cue ball was overlapping the red by a little more than in E, say a half-ball instead of a quarter-ball, then there is no way of avoiding the double-kiss, & this kind of cannon is impossible. **F** We use some right-side to hold the red up.

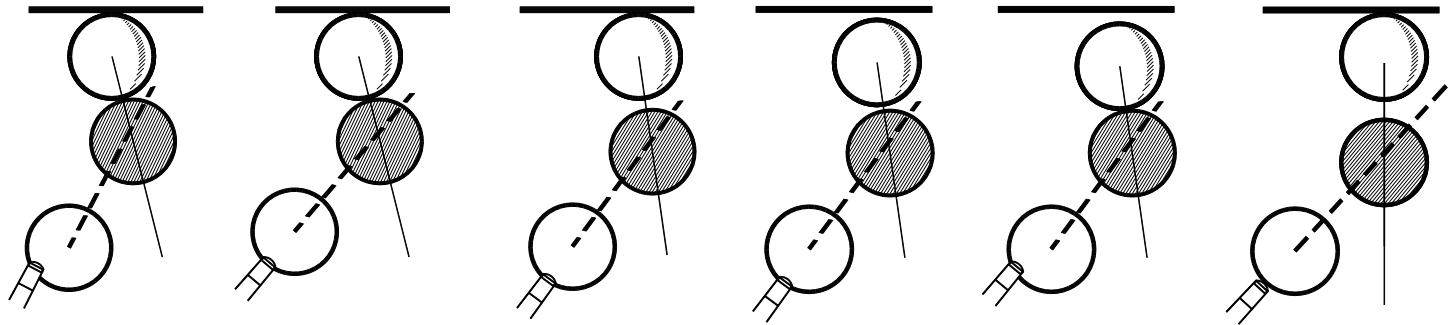
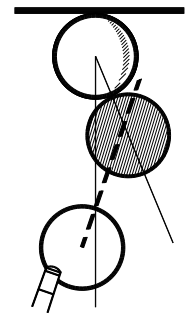
TURNING 23 PLANTED JAW GATHERS



Here in 23 we aren't going to turn the corner like 22, but the pozzys shown are related to the group of pozzys shown in 22, so I decided to stick them here rather than with RunAlongs or Gathers. In 23 the yellow-to-red angle is further round than in 22A, so you can't set up a turn. But you can get a gather off the jaw, as shown.

In 23 aim just left of center on red, hard, with some left-side. The left-side reduces the double-kiss off yellow, & hence the red takes off at a narrower angle. The red gets more of the cushion, & less of the jaw. And by putting on left-side you are reducing the amount of topspin. Koz topspin will widen the red's angle, & it could take it into the pocket. But all of this, what you want or don't want, depends on the actual angle & pozy, as usual. Anyhow, you can't simply look at the yellow-to-red angle, & then visualize a common tangent heading off for the cushion well before the jaw. Koz, the red will take off much wider than this. So if the common tangent aims just left of the jaw, it means that the red will go straight in without touching the sides. So be aware. The common tangent has to aim well left. The cannon in 23 is easy enough, but you have to hit hard to get the leev we want. And the exact cue ball contact on yellow is always uncertain. You won't always get the perfect leev shown. You might get a cover, especially if you hit too softly. At the short separation shown, it will be difficult to avoid a double-hit foul. Chalk-up, & don't try to use much top coz you will miscue. Similar gathers can be set up from the pozzys shown in 24BCDEF.

TURNING 22G Here the yellow-to-red angle iz greater than in 22A & 23. So now, with the help of left-side, we kan actually set up a turn pozzys (not shown), az in the Turning 22 group of pozzys. Koz the red will miss the jaws (it will hit the top cush & then the side cush, & leev a turn next shot.



TURNING 24ABCDEF PLANTED VARYATIONS OF 23

B The qball iz further west than in A. Now we don't need that left-hand-side. But hav another look at the possible thin cannon, close thing. **C** There iz a gap tween red&yellow. This ones eezy. **D** There are two small gaps. No worrys. **E** The red & yellow are touching. We need some left-hand-side to narrow the reds angle, same az in A. **F** Iz similar to 22D, but the gap iz now larger. Eezy, no worrys.

54 TURNS

In this chapter we looked at praps **16** ways of turning the corner. In the next chapter on J-Spots, we look at perhaps **8** ways of using jaw-turns. Theze add to **24** Turns. But turns are hard to define. I meen, a turn iz not just 1 shot, sometimes it iz a very clever seqence, even though it ends with some common type of turn. And do u count all of the varyations, ie with piqué or with follow etc. Some Turns kan be dunn at very long range, theoretically the same animal. Later, we also look at ways of reversing our run, ie turning about, ie TurnAbouts. I hav drawn **30** ways, depending on how u count'em of course. This makes **54** turns of one kind or another.