

= Carom billiards =

Carom billiards , sometimes called carambole billiards or simply carambole (and in some cases used as a synonym for the game of straight rail from which many carom games derive) , is the overarching title of a family of billiards games generally played on cloth @-@ covered , 1 @.@ 5 @-@ by @-@ 3 @.@ 0 @-@ metre (5 by 10 ft) pocketless tables , which often feature heated slate beds . In its simplest form , the object of the game is to score points or " counts " by caroming one 's own cue ball off both the opponent 's cue ball and the object ball (s) on a single shot . The invention as well as the exact date of origin of carom billiards is somewhat obscure but is thought to be traceable to 18th @-@ century France .

There is a large array of carom billiards disciplines . Some of the more prevalent today and historically are (chronologically by apparent date of development) : straight rail , cushion caroms , balkline , three @-@ cushion billiards and artistic billiards . There are many other carom billiards games , predominantly intermediary or offshoot games combining elements of those already listed , such as the champion 's game , an intermediary game between straight rail and balkline , as well as games which are hybrids of carom billiards and pocket billiards , such as English billiards played on a snooker table and its descendant games , American four @-@ ball billiards , and cowboy pool .

= = Etymology = =

The word carom , which simply means any strike and rebound , was in use in reference to billiards by at least 1779 , sometimes spelled " carrom " . Sources differ on the origin . It has been pegged variously as a shortening of the Spanish and Portuguese word carambola , or the French word carambole , which are used to describe the red object ball . Some etymologists have suggested that carambola , in turn , was derived from a yellow @-@ to @-@ orange , tropical Asian fruit also known in Portuguese as a carambola (which was a corruption of the original name of the fruit , karambal in the Marathi language of India) , also known as star fruit . But this may simply be folk etymology , as the fruit bears no resemblance to a billiard ball , and there is no direct evidence for such a derivation .

In modern French , the word carambolage means ' successive collision ' , currently used mainly in reference to carom or cannon shots in billiards , and to multiple @-@ vehicle car crashes) .

= = Equipment = =

= = = Cloth = = =

Cloth has been used to cover billiards tables since the 15th century . The predecessor company of the most famous maker of billiard cloth , Iwan Simonis , was formed in 1453 . Most cloth made for carom billiards tables is a type of baize that is dyed green , and is made from 100 % worsted wool , which provides a very fast surface allowing the balls to travel with little resistance across the table bed . The green color of cloth was originally chosen to emulate the look of grass , and has been so colored since the 16th century . However , as in green eyeshades , the color also serves a useful function : Humans have a higher light sensitivity to green than to any other color , so green cloth permits play for longer periods of time without eye strain .

= = = Balls = = =

Modern billiard balls are made from highly resilient plastics with a typical diameter of 61 @.@ 5 millimetres (2 @.@ 42 in) . They are significantly larger and heavier than their pocket billiards counterparts , ranging between 205 and 220 grams (7 @.@ 2 and 7 @.@ 8 oz) with a typical weight of 210 g (7 @.@ 5 oz) . While UMB , the International Olympic Committee @-@ recognized world carom billiards authority , technically permits balls as small as 61 mm (2 @.@ 4 in) , no

major manufacturer produces such balls any longer , and the de facto standard is 61 @. @ 5 mm (2 @. @ 42 in) . The three standard balls in most carom billiards games consist of a completely white cue ball , a second cue ball with typically a red or black dot on it (to aid in differentiation between the two cue balls) , and a third , red ball . In some sets of balls , however , the second cue ball is solid yellow . Both types of ball sets are permitted in tournament play .

Billiard balls have been made from many different materials throughout the history of the game , including clay , wood , ivory , plastics (including celluloid , Bakelite , crystalate , and phenolic resin , polyester and acrylic) and even steel . The dominant material from 1627 until the early- to mid @-@ 20th century was ivory . The search for a substitute for ivory use was not for environmental concerns but based on economic motivation and fear of danger for elephant hunters . It was in part spurred on by a New York billiard table manufacturer who announced a prize of \$ 10 @, @ 000 for a substitute material . The first viable substitute was celluloid billiard balls , invented by John Wesley Hyatt in 1868 , but the material was volatile and highly inflammable , sometimes exploding during manufacture .

= = = Cues = = =

Carom billiard cues have specialized refinements making them different from the typical pool cue with which many people are more familiar . Such cues tend to be shorter and lighter overall , with a shorter ferrule , a thicker butt and joint , a wooden joint pin (in high @-@ end examples) and collarless wood @-@ to @-@ wood joint (for a one @-@ piece cue " feel ") , a fast , conical taper , and a smaller tip diameter as compared with pool cues . Typical cues are 140 ? 140 cm (54 ? 56 in) in length and 470 ? 520 g (16 @. @ 5 ? 18 @. @ 5 oz) in weight ? lighter for straight rail , heavier for three @-@ cushion ? with a tip 11 ? 12 mm (0 @. @ 43 ? 0 @. @ 47 in) in diameter . The specialization makes the cue significantly stiffer , which aids in handling the larger and heavier billiard balls as compared with pool cues . It also acts to reduce deflection (sometimes called " squirt ") , which may be defined as displacement of the cue ball 's path away from the parallel line formed by the cue stick 's direction of travel . It is a factor that occurs every time english (side) is employed , and its effects are magnified by speed . In some carom games , deflection plays a large role because many shots require extremes of english , coupled with great speed ; this is a combination typically minimized as much as possible , by contrast , in pool . The wood used in carom cues can vary widely , and most quality carom cues are handmade .

= = = Heated slate = = =

The slate bed of a billiard table is often heated to about 5 ° C (9 ° F) above room temperature , which helps to keep moisture out of the cloth to aid the balls rolling and rebounding in a consistent manner , and generally makes a table play faster . A heated table is required under international carom rules and is an especially important requirement for the games of three @-@ cushion billiards and artistic billiards . Heating table beds is an old practice . Queen Victoria (lived 1819 ? 1901) had a billiard table that was heated using zinc tubes , although the aim at that time was chiefly to keep the then @-@ used ivory balls from warping . The first use of electric heating was for an 18 @. @ 2 balkline tournament held in December 1927 between Welker Cochran and Jacob Schaefer , Jr . The New York Times announced it with fanfare : " For the first time in the history of world 's championship balkline billiards a heated table will be used ... "

= = History of games = =

= = = Straight rail = = =

Straight rail , sometimes referred to as carom billiards , straight billiards , the three @-@ ball game , the carambole game , and the free game in Europe , is thought to date to the 18th century , although

no exact time of origin is known . It was known as French caroms , French billiards or the French game in early times , taking those bygone names from the French who popularized it . The object of straight rail is simple : one point , called a " count " , is scored each time a player 's cue ball makes contact with both object balls (the second cue ball and the third ball) on a single stroke . A win is achieved by reaching an agreed upon number of counts .

At straight rail 's inception there was no restriction on the manner of scoring . However , the technique of crotching , or freezing two balls into the corner where the rails meet ? the crotch ? vastly increasing counts , resulted in an 1862 rule which allowed only three counts before at least one ball had to be driven away . Techniques continued to develop which increased counts greatly despite the crotching prohibition , especially the development of a variety of " nurse " techniques . The most important of these , the rail nurse , involves the progressive nudging of the object balls down a rail , ideally moving them just a few centimeters on each count , keeping them close together and positioned at the end of each stroke in the same or near the same configuration such that the nurse can be replicated again and again .

Straight rail is still popular in Europe , where it is considered a fine practice game for both balkline and three @-@ cushion billiards . Additionally , Europe hosts professional competitions known as pentathlons after the ancient Greek Olympic competitions , in which straight rail is featured as one of five billiards disciplines at which players compete , the other four being 47 @.@ 1 balkline , cushion caroms , 71 @.@ 2 balkline and three @-@ cushion billiards .

Straight rail was played professionally in the US from 1873 to 1879 , but is uncommon there today .

= = = The champion 's game = = =

The new game appearing in 1879 , called the champion 's game or limited @-@ rail , is considered an intermediary game between straight rail and balkline and was designed with the specific intent of frustrating the rail nurse . The game employed diagonal lines ? balklines ? at the table 's corners to regions where counts were restricted , thus " cutting off four triangular spaces in the four corners , [taking] away 711 mm (28 in) of the ' nursing ' surface of the end rails and 1 @,@ 422 mm (56 in) on the long rails . " Ultimately , however , despite its divergence from straight rail , the champion 's game simply expanded the dimensions of the balk space defined under the existing crotch prohibition which was not sufficient to stop nursing .

= = = Balkline = = =

Balkline succeeded the champion 's game , adding more rules to curb nursing techniques . There are many variation of balkline but all divide the table into marked regions called balk spaces . Such balk spaces define areas of the table surface in which a player may only score up to a threshold number of points while the object balls are within that region .

In the balkline games , rather than drawing balklines a few inches from the corners , the entire table is divided into rectangular balk spaces , by drawing balklines a certain distance lengthwise and widthwise across the length of the table a set number of inches parallel out from each rail . This divides the table into eight rectangular balkspaces . Additionally , rectangles are drawn where each balkline meets a rail , called anchor spaces , which developed to stop a number of nursing techniques that exploited the fact that if the object balls straddled a balkline , no count limit was in place .

For the most part , the differences between one balkline game to another is defined by two measures : 1) the spacing of the balklines , and 2) the number of points that are allowed in each balk space before at least one ball must leave the region . Generally , balkline games , and their particular restrictions , are given numerical names indicating both of these characteristics ; the first number indicated either inches or centimeters depending on the game , and the second , after a dot , indicates the count restriction in balk spaces , which is always either one or two . For example , in 18 @.@ 2 balkline , one of the more prominent balkline games and of U.S. origin , the name indicates that balklines are drawn 18 inches distant from each rail , and only two counts are allowed

(before the first short , we call " entrée " and for the second short " dedans ") in a balk space before a ball must leave (in 18 @.@ 1 , we call directly the first short " dedans ") . By contrast , in 71 @.@ 2 balkline , of French invention , lines are drawn 71 centimeters distant from each rail , also with a two count restriction for balk spaces .

Over its history balkline has had many variations including 8 @.@ 2 , 10 @.@ 2 , 12 @.@ 2 , 13 @.@ 2 , 12 ½ .2 , 14 @.@ 1 , 14 @.@ 2 , 18 @.@ 1 , 18 @.@ 2 , 28 @.@ 2 , 38 @.@ 2 , 39 @.@ 2 , 42 @.@ 2 , 45 @.@ 1 , 45 @.@ 2 , 47 @.@ 1 , 47 @.@ 2 , 57 @.@ 2 and 71 @.@ 2 balkline . In its various incarnations , balkline was the predominate carom discipline from 1883 to the 1930s when it was overtaken by three @-@ cushion billiards (and pocket billiards) . Balkline is popular in Europe and the Far East .

= = = Cushion caroms = = =

Cushion caroms , sometimes called by its original name , the indirect game , is traceable to 1820 's Britain and is a descendant of the doublet game dating to at least 1807 . The game is sometimes referred to as one @-@ cushion or one @-@ cushion billiards , which is the direct translation of its name into English from various other languages such as Spanish (" una banda ") and German (" einband ") .

The object of the game is to score cushion caroms , meaning a carom off of both object balls with at least one rail being struck before the hit on the second object ball . Cushions caroms was defunct for a number of years , but was revived in the late 1860s as another alternative to straight rail , for the same reasons that balkline developed , i.e. , as an alternative to the tedium engendered by the use of the " rail nurse " (see above) . Cushion caroms is still popular in Europe .

= = = Three @-@ cushion billiards = = =

In three @-@ cushion billiards , sometimes called three @-@ cushion carom , or carambole , the object is to carom off both object balls with at least three rail cushions being contacted before the contact of the cue ball with the second object ball . Three @-@ cushion is a very difficult game . Averaging one point per inning is professional @-@ level play , and averaging 1 @.@ 5 to 2 is world @-@ class play . An average of one means that for every turn at the table , a player makes 1 point and misses once , thus making a point on 50 % of his or her shots .

The origin of the game is not entirely known . It is undisputed that one Wayman Crow McCreery of St. Louis , Missouri popularized the game in the 1870s . At least one publication categorically states he invented the game as well . The first three @-@ cushion billiards tournament took place January 14 ? 31 , 1878 in St. Louis , with McCreery a participant and New Yorker Leon Magnus the winner . The high run for the tournament was just 6 points , and the high average a 0 @.@ 75 . The game was infrequently played , with many top carom players of the era voicing their dislike of it , until after the 1907 introduction of the Lambert Trophy . By 1924 , three @-@ cushion had become so popular that two giants in other billiard disciplines agreed to take up the game especially for a challenge match . On September 22 , 1924 , Willie Hoppe , the world 's balkline champion (who later took up three @-@ cushion with a passion) , and Ralph Greenleaf , the world 's straight pool title holder , played a well advertised , multi @-@ day , match to 600 points . Hoppe was the eventual winner with a final score in of 600 ? 527 .

Three @-@ cushion billiards retains great popularity in parts of Europe , Asia , and Latin America , and is the most popular carom billiards game played in the US today , where pool is far more widespread . The principal governing body of the sport is the Union Mondiale de Billard (UMB) . It had been staging world three @-@ cushion championships since the late 1920s . The International Olympic Committee @-@ recognized World Pool @-@ Billiard Association (WPA) cooperates with the UMB to keep their rulesets synchronized .

= = = Artistic billiards = = =

In artistic billiards , sometimes called fantasy billiards or (in French) fantaisie classique , players compete at performing 76 preset shots of varying difficulty . Each set shot has a maximum point value assigned for perfect execution , ranging from a 4 @-@ point minimum for lowest level difficulty shots , and climbing to an 11 @-@ point maximum for shots deemed highest in difficulty level . There is a total of 500 points available to a player . The governing body of the sport is the Confédération Internationale de Billard Artistique (CIBA) .

Each shot in an artistic billiards match is played from a well @-@ defined position (in some venues within an exacting two millimeter tolerance) , and each shot must unfold in an established manner . Players are allowed three attempts at each shot . In general , the shots making up the game ? even 4 @-@ point shots ? require a high degree of skill , devoted practice and specialized knowledge to perform .

World title competition first started in 1986 and required the use of ivory balls . However , this requirement was dropped in 1990 . The highest score ever achieved in world competition was 374 , by the Frenchman Jean Reverchon in 1992 , while the highest score in competition overall is 427 set by Belgian Walter Bax on March 12 , 2006 at a competition held in Deurne , Belgium , beating his own previous record of 425 . The game is played predominantly in western Europe , especially in France , Belgium and the Netherlands .

= = Competition disciplines = =

Triathlon : Straight rail , Balkline and One @-@ cushion or Balkline , One @-@ cushion und Three @-@ cushion (like the actually ANAG Billiard Cup) .

Pentathlon : Straight rail , Balkline (47 @.@ 2 & 71 @.@ 2) , One @-@ cushion and Three @-@ cushion .