

Chapter 16

New pieces (3) : Pieces with unlimited range

[This chapter introduces pieces which can keep moving until they hit the edge of the board or some other obstacle, as can the rook, bishop, and queen in orthochess. We restrict ourselves here to pieces which capture by 'displacement' (occupation of the square of the target man); pieces which capture otherwise, for example by leaping over the target man, will be considered in a later chapter.]

16.1 Pieces with orthogonal or diagonal movement, obstructions respected

[This section considers pieces which are variations and developments of the orthochess rook, bishop, and queen.]

Ciccolini's Game (Giuseppe Ciccolini, 1820). Board 10x10 (a1 black); extra pieces are General (moves as Q but when moving orthogonally can only stop on alternate squares, thus always staying on one colour) and Elephant (3-2 leaper, see last chapter); baseline (a1-j1/a10-j10) RNGEKQEGNR, the bishops being discarded. Pawns move up to three squares initially and a pawn that moves one square may subsequently move two. Castling is 'free', allowing alternative squares to the K and R, as practised in Italy at that time. Ciccolini was a strong player and in consequence his game attracted a measure of support. (Photocopy of *Un Nuovo Giuoco di Scacchi*)

Emperor Chess [Lambert] (H. R. Lambert, 1954). Board 12x12; extra pieces are Emperor (as Ciccolini's General above) and Commander (Q+N); baseline (a1-l1/a12-l12) RNBEQCKQEBNR. Gollon suggests pawns have option of moving up to three squares initially. The game is something of a misnomer since the emperor has less power than a queen or commander. (Correspondence between John Gollon and Philip Cohen)

Mideast Chess (originator unknown, 1960s?). Board 10x10, 16 pieces plus 10 pawns per side; extra pieces are Cavalier (moves any number of squares orthogonally followed by one diagonally or one diagonally followed by any number orthogonally, no leaping), Castle (leaps as N or two squares as R or B),

Chevalier (3-1 leaper), Courtier (4-3 leaper); array (a1-j1/a10-j10 and inwards) Cr-Ch-CasCas-Ch-Cr, RNBCavQKCavBNR, 10xP. Originated in Santa Cruz county, California, also played in Hawaii. (Correspondence between John Gollon and Philip Cohen)

Edgehog Chess [Driver] (John Driver, 1966). Usual set-up but queens must always begin or end a move on the edge of the board; hence if on a perimeter square a queen can move normally. (*British Chess Magazine*, February 1966) [According to Anthony Dickins in *A Guide to Fairy Chess*, the piece was invented to fit the name.]

Gutzwiller's Chess (James Gutzwiller, 1969). Developed by Cincinatti Chess League when Gutzwiller mated in a league match after inadvertently transferring a bishop move to an adjacent diagonal. Bishops move only on diagonals through adjacent orthogonal squares, and hence change square colour at every move. (Manuscript note presumably deriving from personal communication)

Hobbler Chess (Tony Paletta, 1980). Queens, rooks and bishops are 'hobbled' - they cannot move one square, only two or more. Hobbled pieces cannot vault nor capture adjacent men. (*Chess Spectrum Newsletter*)

Archer Chess (Tony Paletta, 1980). Board 7x7; rooks are hobbled (see above); bishops are replaced by Archers (move one square

orthogonally or two squares diagonally, leaping intervening square); baseline (a1-g1/a7-g7) RNAKANR. An archer is about equivalent to a knight; two archers can checkmate. (*Chess Spectrum Newsletter*)

Warrior Chess [Paletta] (Tony Paletta, 1980). Board 7x7; no bishops, but each side has a Warrior which moves one square orthogonally (where it may not stop) and then diagonally as a bishop (no leaping), thus always changing square colour. Baseline (a1-g1/a7-g7) RNQKWNR. (*Chess Spectrum Newsletter*)

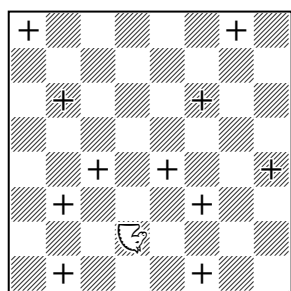
Rennissance Chess [Greenwood], also known as **Rennchess** (Eric Greenwood, 1980). Name deliberately misspelt. Board 12x10; extra pieces are Guard (as K but not subject to check), Fox (one square orthogonally), Page (K+N), Squire (one or two squares in any direction, may leap), Castle (as N or exactly two squares in any direction, may leap), General (3-1 leaper), Archbishop (B+N), Nobleman (R+N), Prince (Q+N), Cavalier (R then one square as B, or one square as B then as R), Duke (B then one square as R, or one square as R then as B); array (a1-11/110-a10 and inwards, centred) Ge-Pr-DSPaCav-Q-Ge, RNCasBAGuKNBCasNR, 12xP, FF (kings on g2/f9). P can promote to F on 9th rank,

promotes to piece lost on 10th; F can promote to Gu on 10th rank. No castling. Variations: (a) 12x12 board (suggested by LeLand Lankford); (b) 12x12 board but pieces set up on ranks 2/11 inwards; (c) 12x14 board, pieces on ranks 2/13 inwards. Inspired by Timur's Great Chess (see chapter 29), the incorporation of whose pawns is not included as official due to possible set construction problems but is 'strongly recommended'. (*Chess Variant Pages*) [Text revised. Not only is the name deliberately misspelt, but the date of invention is given as 'April 1, 1980'; I cannot help feeling suspicious...]

Modern American Chess (Proprietary game, Modern American Chess Inc, 1984). Board 10x10; extra men are Archbishop (moves as bishop but may also move to an adjacent empty square of the opposite colour and can continue from that square, on the same move, as a bishop 'in order to capture an opponent's piece') and Power Pawn (as ordinary pawn but promotes to 'any two Chessmen that the player desires, except the King'); array (a1-j1/a10-j10 and inwards) ARNBQKBNRA, PwPPPPPPPPw. The 60 squares between the two forces are described as being 'reminiscent of a tournament battlefield of the ancient Knights'. (Photocopy of manufacturer's rules leaflet)

16.2 Pieces with oblique movement, obstructions respected

The 'nightrider', traditionally represented by an inverted knight, moves in straight lines through squares a knight's move apart :



It was invented by T. R. Dawson for use in problems (*Die Schwalbe*, February 1925), but there have been two forms of **Nightrider Chess**. In the simpler, knights are replaced by

nightriders in the array, and pawns may promote to nightriders but not to knights (*Nost-algia* 150). In the version developed by V. R. Parton in the 1950s, the knights are omitted altogether (hence only 14 men a side), the queens are replaced by nightriders, promotion is only to nightrider, and the pawns start on the third rank to prevent immediate forays by the nightriders. Boyer described the resulting game as 'very attractive' (*Nouveaux Jeux d'Echecs Intéressants*).

[It was the nightrider which seems to have prompted David's first appearance in the chess literature, as the composer of a simple but neat problem which appeared in *Fairy Chess Review* in April 1941. David would not have thanked me for reproducing this problem here, but it was typical of the early work of somebody who was going to become good.]

We have called the knight a '2-1 leaper', and the nightrider might be called a '2-1 rider'. From it, Dawson developed **Five-Rider Promotion** (British Chess Federation problem tourney 21, 1936) in which promotion is possible to any of the five basic riders which can take a two-step or longer ride on the 8x8 board (rook, bishop, nightrider, 3-1 rider, 3-2 rider) but not to the orthochess queen or knight. [In the first edition, David gave this under the name 'Five-Rider Chess', but no initial array was specified and I am not aware that anyone has ever tried to play it as a game. Some of the problems are remarkable: for example, after White's first move, Black can promote a pawn, and whichever of the five riders he chooses White's counter is to promote a pawn of his own to exactly the same rider. But to Dawson, this sort of thing was merely a technical exercise.]

In addition, we can imagine a '2-0 rider' which skips along files and ranks in twos ignoring anything on the intervening squares, a '3-0 rider' which skips along in threes, and a '2-2 rider' and '3-3 rider' which skip along the diagonals similarly. Putting all these together gives **Ninerider Chess** (originator unclear, 1979). Kings and pawns are unchanged, but other pieces are replaced by riders: knights by nightriders, rooks by composite 1-0/2-0 riders (pieces which can move either as 1-0 riders or as 2-0 riders), bishops by composite 1-1/2-2 riders, and queens by composite 3-0/3-1/3-2/3-3 riders (Philip Cohen recommended moving the 3-0 rider and 3-3 rider powers to the rook and bishop respectively). Thus in the normal starting position White could play h1xh7 (moving as a 2-0 rider and hence skipping over the pawn at h2) and threaten to play h7xh8 as a 1-0 rider, and if Black himself captured by h7xh8 White could mate by d1xh7 (moving as a 3-2 rider and giving mate as a 3-1 rider). Wayne Schmittberger suggested reversing the black K and Q (*Nost-algia* 234).

16.3 Reflecting pieces

Billiards Chess, also known as **Reflection Chess [Billiards]** and **Snooker Chess** (origins unknown). The edges of the board serve as 'cushions' off which pieces rebound in the manner of billiard balls, the rebound being part of the move and the angle of reflection

Wolf Chess (Arno von Wilpert, 1943). Board 8x10; extra pieces are Wolf (R+N), Fox (B+N), Nightrider as above, Sergeant (see below); KNrBBRFWQ on a1-h1/h10-a10 (kings on a1/h10), PSSPPSSP on ranks 2/9, further pawns on b3/c3/f3/g3 and b8/c8/f8/g8. A sergeant moves and captures one square diagonally or straight forward. An unmoved P or S can advance two squares. Unlike a P, an S cannot capture e.p. P and S promote to any array piece; a P can promote in addition to an Elephant (Q+N). No castling. A number of correspondence matches and tournaments have been played, and what were claimed to be the first international over-the-board matches in a chess variant were played in September 1960 between Paris and Augsburg. The German side won both.

Wolf Chess appears to suffer from two drawbacks. Firstly, the thicket of pawns hampers quick development; and secondly, with the kings in opposite corners and the major pieces facing them in the array, strategy tends to be stereotyped with the players perform attacking on opposite wings. (Photocopy of booklet *Wolf-Schach*)

Twenty-First Century Chess [Trone] (Bruce Trone, 1991) Q has added power of N, Bs move like Qs, Ns are Nightriders (see above), pawns can move one square sideways or backwards. (Unprovenanced note presumably deriving from personal communication)

Cavalier Chess (Fergus Duniho, 1998). Board 8x8; K moves as K+N; extra pieces are Marshall (R+N), Paladin (B+N), Nightrider (as above), Cavalier (as N but one square orthogonally followed by one diagonally, and the intervening square must be empty); no pawns, but cavaliers promote to file piece on reaching the 8th rank (any piece in the case of the e-file); array (a1-h1/a8-h8 and inwards) MNrPQKPNrM, 8xC. (Chess Variant Pages)

equalling the angle of incidence. In its virgin form, only bishops and queens reflected. In the early 1950s, Jacques Berthoumeau developed a widely played version in which all men can reflect (*Nouveaux Jeux d'Echecs Non-orthodoxes*). The king rebounds by single

squares (Kg3-h2-g1-f2), a pawn can only do so in capturing (bxa6-b7), a knight reflects either at an acute or obtuse angle (Nc2-a3-c4, Nb2-a4-b6) but cannot rebound from a corner. A capture on an edge square does not terminate a move, a capture other than on an edge square does, and a move that ends on the square it started is always illegal unless a capture is made in the process. The maximum number of captures possible in a single move is five (for Q or B), four on the edge and one in the centre. Rooks are the lame pieces of the game but can sometimes reflect to advantage in making an edge-capture. Subsequently Berthoumeau amended his game (*Nouveaux Jeux d'Echecs Intéressants*). The principal changes required that only one capture could be made on a move (though if on an edge square it could be followed by rebounds), a man did not command squares beyond an edge piece which it could capture, the king could not rebound through check, and the knight's power was enhanced to allow it to bounce out of a corner (Nc2-a1-b3) and also to have a double rebound (Nb4-a6-b8-c6) including a single capture on any of these squares.

Billiards Chess has been played in AISE in conjunction with Progressive and Losing Chess (*Eteroscacco* 8, 9, and later). Philip Cohen offered an 8x7 variant with pawns restricted to a single-step move (*Nost-algia* 193). The feature of this board is that the bishops can command every square. **Bouncy Chess** (Patrick Donovan and Paul Novak, 1980s) allows knights to reflect at any angle (*Variant Chess* 3). **Lambeth Conference** (Adam Sobey, 1980s) is an attenuated version in which only bishops reflect (the Lambeth Conference is a decennial convocation of Anglican bishops). It was played at Haslemere Chess Club Christmas gatherings, and 'acclaimed' (note in David's files).

[David described this as 'originally a problem theme, later played as a game', but when publishing some original problems in *The Problemist Fairy Supplement* in 1932 Dawson wrote that the 'reflecting bishop' had been suggested previously but that so far as he knew it had not hitherto been used in problems. So it would seem that the players were there first.]

Pocket Chess, also known as **Dutch Billiards**

(J. B. Verdonk, 1949). A form of Billiards Chess in which rebounds are limited to Q and B. A piece played into a corner square (pocketed) is at once re-spotted (replaced on its original square of the same colour). Any piece of either colour occupying the original square is removed from play. (*Fairy Chess Review*, November 1949, also Stone)

Ricochet Chess (Philip Cohen, 1968, subsequently modified). A form of Billiards Chess in which men rebound off other men as well as off the board edges. A number of sub-variants were later developed to tame the wild play generated by the original rules: stop on a capture, or rebound only from enemy men or board edges, or only from friendly men or board edges, or only from pieces and not from board edges, or make not more than a given number of rebounds in a move. (Author's rules sheet)

Bates's Game (Jim Bates and Paul Schooling, 1961). Board 12x12; pieces are 1 x K, Empress (Q+N), 2 x Archbishop (reflecting bishop), Deacon (B+N), Q, Squire (composite 3-2/3-0/2-1 leaper), Vizier (R+N), 4 x R, B, N, 12 x P; array (a1-l1/l12-a12 and inwards) VSADQKEQDASV, RNBRNBBNRBNR, 12xP. P as in orthochess except that initially it can move up to three squares forward or one back. K moves twice as orthochess K and can only cross check to take the checking piece. If K is in check with only one escape square, it is mate. Castling and e.p. possible. Persistently played within a small group; there was some research, and the array underwent changes. (Manuscript notes presumably deriving from personal communication)

Knightrider Bouncy (Stuart Conquest, 1983). Knightriders (spelt with an initial K but having the same move as the nightrider we have already met) replace knights in the starting position. The name of the piece was taken from a Batman-like character in a comic, and its movement conceived in ignorance of the use of such a piece by problemists for over half a century. In Knightrider Bouncy, knightriders can bounce off board edges, changing direction as desired as many times as they like during a move provided squares visited are vacant. If Black tries to pin White

Krd2 against White Ke1 by playing Qc3, White can escape by Krx3 (via b1) provided that b1 is empty. Queens and bishops are also reflected. The game developed a small cult following and a 'World Championship'. The question was raised at a Hastings Chess Club meeting whether this 'non-chess' activity should be permitted.

A knight rider is probably stronger than a queen (K+Kr mate a bare king) but a weakness of the game is that the knight riders are inclined to be exchanged. Conquest suggests this could be overcome by making them immune to capture by each other. There is no forced win for White; for instance, 1 Krb1-a3-c4 is not mate on account of 1...d6. (Manuscript note presumably deriving from personal communication)

Camelot Chess (Walter Hagemann, date unclear). Board 8x12 (a1 black) with invisible bumper bar surrounding the board off which Q, B, N rebound. Array as orthochess advanced one rank, K and Q reversed (so first rank clear, Q on own colour). Pawns may move up to three squares initially. The bumper bar is at a half-square's distance from the board. Thus Bc1 moves via a3 to a5 etc. Similarly, Na1 via a2 to a4 or via b1 to d1. Variations: **Horsey Camelot Chess** (kings and queens, and their pawns, have their normal

starting squares, and queens have added knight powers); **Maad Camelot Chess** (as Horsey Camelot Chess, and rooks also, though not their pawns, have their normal starting squares, and have added knight powers). (Author's rule sheet, undated but typographical style suggests late 1970s or 1980s) [Text revised. The spelling 'Maad' in the source, possibly in error, possibly to imitate the neighing of a horse. David thought it should be corrected to 'Mad'; I am not so sure.]

Rollerball (J.-L. Cazaux, 1998). Board 7x7 less central nine squares; PBR on c1-e1, PKR on c2-e2, Black mirrored about the centre. R one square only backwards but as normal forwards or sideways, and in addition a rook on the edge can bounce once off a corner square and come off at right angles, thus a rook on b1 covers the whole a and b files (the board edges have little 45-degree insets across the corners to make this clear). B one square only backwards but as normal forwards, one bounce allowed off a side wall (external or internal). P moves and captures one square straight or diagonally forward, promotes to R or B on an opposing pawn's start square. Win by checkmate or getting K clockwise (only) to opposing K square. (Chess Variant Pages) [Text revised]

16.4 Other pieces which change direction in mid-move

Haffner's Chess (Don Haffner, 1969). Board 10x8; extra pieces are Archbishops, which move like bishops but must make a right-angle turn to move or capture; baseline (a1-j1/a8-j8) RNBAQKABNR. (*Nost-algia* 112)

Zonal Chess (Proprietary game, Check Mate Games Corp, 1970). 104-square board made up from a normal 8x8 board (now e1-l8) and two 20-square triangular zones d1-a4-a5-d8 and m1-p4-p5-m8; usual array on files e-l plus additional pawns on d2/7 and m2/7. The four squares d1/8 and m1/8 are neutral. Usual rules except that Q, R or B can make any number of moves within a zone (but not when moving into it), a move terminating on (1) a capture; (2) exit from the zone (even if the piece moves directly across into the other zone); or (3) occupation of a neutral square. The other men

are not affected except that pawns promote on end squares of any of the 16 files. A king is not in check from a zonal piece unless the two are in a straight line (knights excepted). (Photocopy of rules booklet)

Right-Angle Chess (David Moeser, 1971). The ranks and files of the 8x8 board are considered to be joined so as to form new lines (Flanks) for orthogonal-moving line-pieces (Qs and Rs). There are 14 flanks hinged on the a1-h8 diagonal, a8-a1-h1, b8-b2-h2, etc, and a8-h8-h1, a7-g7-g1, etc, but only two corners (a8 and h1). **All-Angle Chess** (David Moeser and James Gutzwiller, 1971) is the same with a further 14 flanks hinged on the a8-h1 diagonal. (*Neue Chess* 6/7) [Right-Angle Chess was the mature form of the game which appeared in the first edition as Truncated

Pseudosphere or TPS Chess. It was apparently found simpler to play on an ordinary board and allow certain moves at right angles than to draw a two-dimensional representation of a truncated pseudosphere and then try to work out where the lines went.]

Elbow Chess (G. Balbo, 1975). Pieces apart from the king are obliged to make a right-angle turn midway through a move or capture. Thus a rook moves only to squares of its own colour (e.g. Ra1-a5 via c3). A bishop must move first along a rank, then a file, or vice versa (e.g. Bc1-f4 via f1 or c4). A knight's move is a compromise: one square on the rank then two on the file, or vice versa. The pawn moves two squares at a time (e.g. e2-e4 via d3 or f3, e.p. allowed on the elbow square). Pawn captures are normal. Note that a pawn which makes an odd number of captures cannot promote. Squares traversed must be vacant, so Ra1-a3 is possible only if b2 is vacant; whether or not a2 is occupied is immaterial. Castling allowed as under normal game conditions except that the rook on a1 moves one square further via the third rank. (*Le Courier des Echecs*, April 1976)

Circuit Chess, also known as "**Round Chess**" [Schwind] (Rudolf Schwind, 1977). Co-existent with the 8x8 board there are four circuits, respectively of 28 (perimeter

squares), 20, 12 and 4 (centre squares). Orthochess, but in addition a Q or R can travel any distance round a circuit provided the move is over vacant squares. Castling is perilous. (*Rochade* 157) [Schwind called the game "Round Chess" in inverted commas because it arose by taking an idea from a chess game on a round board, but I think this name will cause confusion with the genuine round-board games to appear later and I have taken the liberty of suggesting an alternative.]

Chess on Four Boards (Ralph Betza, 1996). Board 16x16; extra pieces are Archbishop (B+N), Chancellor (R+N), Elephant (one or two steps diagonally, may leap, or one step orthogonally), Superknight (as knight but also 3-1 and 3-2), Unicorn (one step diagonally or two orthogonally, may leap), and Rose as described below; baseline (a1-p1/a16-p16) RNUEBRoCQKMSBEUNR. The Rose makes a sequence of knight moves as long as the road is clear, veering consistently to left or right after each. On a sufficiently large and otherwise empty board, a rose on g7 can move to e8 and then on to c7, b5, c3, e2, g3, h5, and back to g7, or on to d10, e12, g13, i12, j10, i8, and again back to g7, and similarly after each of its other initial jumps; a drawing of the resulting pattern makes the name obvious. It was invented by Robert Meignant in 1968 for use in problems. (Cazaux) [Text editorial]

16.5 Pieces which ignore obstacles

Aviation (L. Legan, 1913). Usual array except that b- and g-pawns on both sides are replaced by Aviators. Aviators behave as bishops but can also fly over any number of men of either colour on the diagonal either to move or capture. An aviator on its start square can only be captured by a pawn (getting over the awkward fact that the aviators attack one another in the starting position). All four rooks are en prise initially, but a rook would be a poor exchange for an aviator. Played in Paris during World War I. (*Chess Amateur*, February 1922)

X-Ray Chess (origins unclear, see below). Line-moving pieces, including a pawn making its two-step move, may pass through one intervening man. [X-Ray Chess was claimed

by Graham Taylor in the March 1990 *British Chess Magazine* as having been invented by himself in 1958, but George Jelliss pointed out that T. R. Dawson had composed a problem to this or a similar rule in 1913: White Ka7, Rc7, Bd7, Pb7/a2 (5), Black Ka5, Pa3 (2), mate in 2 by 1 b8(N) Kb4 2 Nc6. There have been other reinventions subsequently. According to Taylor, inexperienced players often start 1 Qh5+ intending 1...g6 2 Qe5 'mate', but there are two objections: Black can block the check from e5 by playing 2...Be6, and in any case he can meet 1 Qh5+ by 1...Rxh5.]

Dabbabante Chess (V. R. Parton, 1971). Board 10x10; extra pieces are Dabbabantes, which move like a rook but to every second square, so staying on squares of one colour,

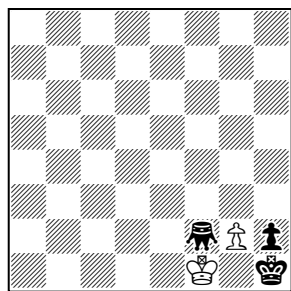
and can pass over occupied squares even of the colour on which they travel; array (a2-j2/j9-a9 and inwards, end ranks empty) RNDBQKBDNR, 10xP. (*100 Squares for Chess and Damante*)

Lighthouse Chess (Hans Muthopp, 1976). Queens may leap pawns but not pieces. This time 1 Qh5 does work, being indeed mate, and the array needs adjustment. (*Neue Chess* 10)

Vault Chess (Tony Paletta, 1980). In addition to their usual powers, queens, rooks and bishops have the option when moving (not capturing) of vaulting over a single man of their own colour and landing any number of vacant squares beyond. The powers of the other chessmen are not affected. (*Chess Spectrum Newsletter*)

16.6 Pieces which exploit obstacles

Grasshopper Chess. The Grasshopper moves on queen lines, leaping the first man of either colour it encounters and landing on the square immediately beyond (a G on an empty board cannot move). It was invented by T. R. Dawson in 1913 for use in problems, but two games using it have evolved. In the simpler, the queens in the normal array are replaced by grasshoppers. In the version developed by J. Boyer in the 1950s, the back ranks are standard, there are 8xG on ranks 2/7, and 8xP on ranks 3/6 (no two-step move). (*Nouveaux Jeux d'Echecs Intéressants*)



A problem by V. Onitiu, *Die Schwalbe* 1929. The inverted queen on f2 denotes a grasshopper. White mates in 6 by 1 g3 (giving Black a move, and forcing him to play it since he has no other) Gh4 2 g4 Gf4 3 g5 Gh6 4 g6 Gf6 5 g7 Gh8 6 gxh8(G)!

Screen Chess [Paletta] (Tony Paletta, 1980). In addition to their usual powers, knights act as screens for friendly line pieces (Q, R, B). Suppose White Ba1/Ne5, Black Bh8: Ba1 attacks Bh8 but not *vice versa*. Conditions for castling must take account of screened pieces. (*Chess Spectrum Newsletter*)

Separate Realms Chess (Mike Nelson and Peter Aronson, 2002). Board 8x8; standard array. Movement and capturing vary. K moves one square diagonally, captures one square orthogonally. R moves in two-square orthogonal leaps, B in two-square diagonal leaps, Q as R+B; all three pieces capture as in orthochess. N moves or captures like a N forward or backwards (four squares) but can only capture sideways (4 squares). Pawns are orthodox. (*Chess Variant Pages*)

Columbia Cannon Chess (CCC) (cooperative creation, 1965). Usual board and men; kings and pawns behave normally. Line pieces (Q, R, B) move by leaping over a man of either colour to any square beyond provided the way is clear, and if the first man beyond is hostile it can be captured or checked. 'Knights' are knights only in name; they move, capture and check as rooks but one or two squares only, and when moving two squares they may leap the first. The game tends to violence in the opening stages, but as the forces are diminished so also is the power of the remaining line pieces, and the knights, the most powerful pieces on the board, take over. Promotion to knight is usual. Subsequent opening analysis found that 1 Qb3, attacking both knights, gave White too big an advantage, and this was overcome (1975) by reversing the black K and Q in the array. In the ending, K+N can mate a K. (*Nost-algia* 168, 179, and later)

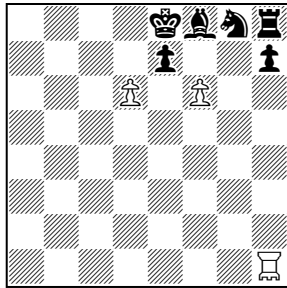
Twenty-First Century Chess [Jelliss] (George Jelliss, 1991, revised 1998). Board 10x9; 30 men a side, the basic idea being 'to employ all the R, B, and N-line riders and hoppers'. We have already met the Grasshopper, which acts along Q-lines, and an equivalent piece can be defined along any straight line (so if there is a Nightriderhopper

on a1, nothing on b3, and a man of either colour on c5, the Nrh can ride up to c5, jump over it, and land on d7, capturing any enemy man that may be there). Additionally, the game uses an Equihopper, which uses a man at any distance as a pivot and lands the same distance away on the far side of it.

Baseline (a1-j1/a10-j10) R, Nr, B, R+Nr, Q, K, B+Nr, B, Nr, R, all being riders apart from the K; corresponding hoppers on next rank in, with an E in front of the K; third rank 10xP.

16.7 Pieces which move normally but must jump to capture

Xiangqi (Chinese Chess) will appear in chapter 27, but its Pao or Cannon has inspired the invention of similar pieces in games otherwise derived from Western chess and it is conveniently described here. It moves as a rook, but can capture only if there is exactly one man between it and its target.



In the diagram, the upturned rook at h1 represents a cannon. It can move to e1, and this is check; the pawn on e7 can nullify the check by capturing and moving off the file, but it cannot do so by moving along it. The cannon cannot take the pawn on h7, but it can take the rook on h8, and by doing so it will pin both the knight and the bishop.

Akenhead's Chess (named for J. Akenhead, 1947, but partly anticipated by Z. Mach in 1939). Usual array but only K behaves normally. Q, R, B move as normal except to capture, but to capture they must leap over a man (not more) of either colour to any square beyond on the same line. N moves as normal but without leaping, moving first one square orthogonally, then one diagonally. The pawns are Berolina pawns, moving diagonally and capturing straight ahead. Akenhead and

Pawns can move two squares at any time (e.p. permitted) and promote on either of the last two ranks; promotion to the piece which occupied that square initially (promotion on K-square to Q+Nr). Castling permitted, randomized start if preferred. In the original formulation, the K had the added power of an E and the man in front of it was a Lion (as G but can ride on to any square beyond the man hopped), but this was changed in the later version. (*Variant Chess* 6/28) [Text revised]

Dawson composed a large number of game tasks (both sides conspire to achieve the result). The family is popular with problem composers. (*Fairy Chess Review*, November 1939 and April 1947) [The R is the cannon (Pao) of xiangqi, which we have just met. The Q and B have no parallels in xiangqi, but Mach introduced the B with the name 'Vao' and 'Leo' was subsequently coined for the Q.]

Lion Chess (J. Boyer, 1950s). Usual array; K, N, P orthodox, Q, R, B respectively as Leo, Pao, Vao in Akenhead's Chess above. Pawns promote to orthochess pieces only. (*Nouveaux Jeux d'Echecs Intéressants*)

Cohen's Error Chess (Philip Cohen, 1977). In his *Olla Podrida* column in *Nostalgia* 210, Philip Cohen published the rules of Columbia Cannon Chess (see previous section) but confused them with Lion Chess, thereby giving birth to a not unattractive hybrid in which the line pieces move as in Lion Chess (and Akenhead's Chess) and everything else is as in CCC.

Decimal Oriental Chess (V. R. Parton, 1971). Board 10x10; extra pieces are Minister (moves one square diagonally), Elephant (leaps two squares diagonally), Camel (3-1 leaper), Cannon (as Pao above); K is known as Commander, R as Chariot; array (a1-j1/j10-a10 and inwards) ChCnEMCoECmCnCh, PPNPPPNPP. (*100 Squares for Chess and Damante*) [David described this game in the first edition as 'Pseudo-Xiangqi', but in truth the differences seem more significant than the similarities.]

Shako, also known as **Unified Chess** (J.-L. Cazaux, 1990). Board 10x10; extra pieces are Elephant (moves one or two squares diagonally, may leap intervening square) and Cannon (as above); CC on a1/j1 and a10/j10, ERNBQKBNRE on ranks 2/9, 10xP on ranks 3/8. The name means chess in Esperanto. (Cazaux)

Toulousain Chess (Jean-Louis Cazaux, 2003). Board 12x12 (a1 black); extra men are Gryphon (moves one square as B, then optionally any number of squares as R), Lion (as K, or as N, or two squares orthogonally, jumping permitted), Cannon (as above), Elephant (one or two squares diagonally, jumping permitted), Camel (3-1 leaper), Corporal (see below); array (a1-11/a12-112 and inwards) CnCmCoCo...CoCoCmCn (8xCo), ERNBGKQLBNRE, 12xP. Pawn as in orthochess but with two-step move allowed at any time; Corporal as pawn but may also

advance one square diagonally without capturing. Pawn and Corporal promote on the last row to Q, Lion, or Gryphon, and may take each other en passant. Board coloured red and black in honour of Toulouse rugby club. (Chess Variant Pages) [Text editorial]

[David's files also include a description by George Dekle Sr of a 'Kriegsfeld Chess' on an 11x11 board with 2 x alfil (leaps two squares diagonally), 2 x cannon as above, no pawn-two, promotion to B only, baseline RNACBKBCANR, and he reported this in the first edition as one of two games called 'Kriegsfeld Chess'. However, I have to say that I find it completely unbelievable, and I have taken it upon myself to omit the game. The name is curiously bilingual, and the rules are so eccentric as to suggest mistranscription or misunderstanding somewhere along the line. If the game had genuinely existed, there would be a reference to it somewhere else.]