

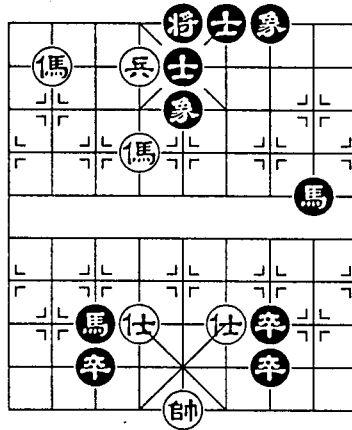
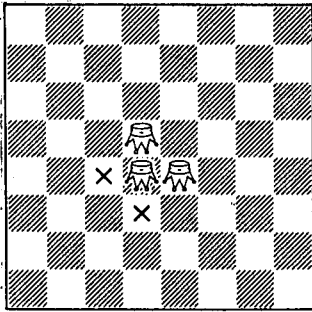
Variant Chess

THE MAGAZINE TO BROADEN YOUR CHESS HORIZONS

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Progressive Chess

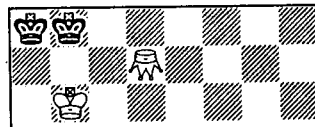
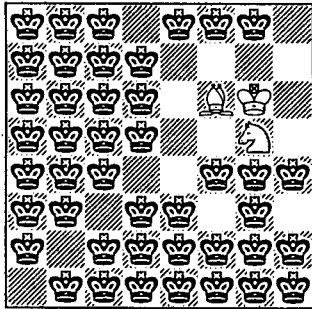
Losing Chess

Hostage Chess

Kriegspiel

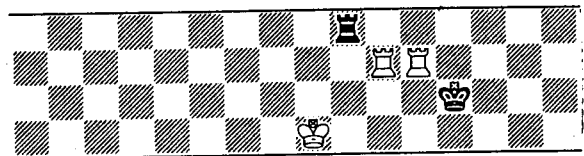
XiangQi

Avalanche Chess



THAI CHESS

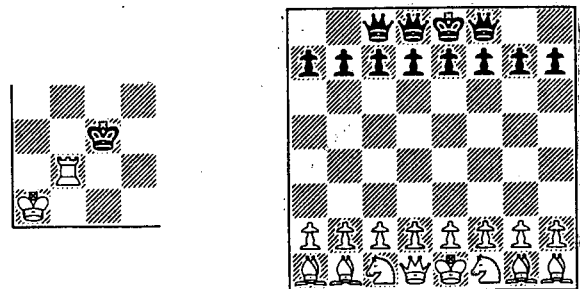
DAWSON'S CHESS



Wythoff's Game

Augsburg Chess

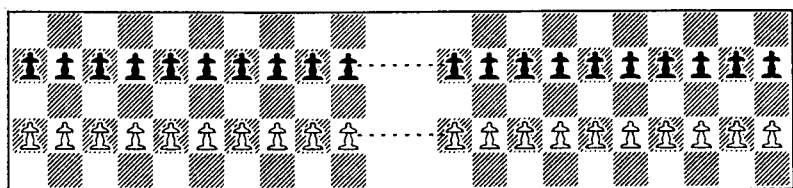
MONOCHROME CHESS



CUBIC CHESS

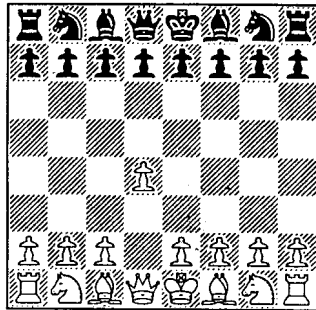
Circular Chess

Cylindrical Chess

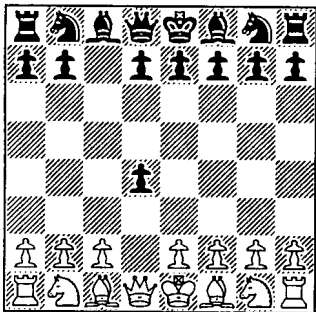


PROGRESSIVE CHESS

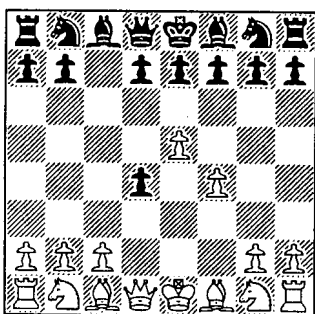
Last time, we looked move by move at an expert game starting 1 e4. Fred Galvin's game against Noam Elkies in the 1996 "First World Internet Progressive Chess Championship" started 1 d4 :



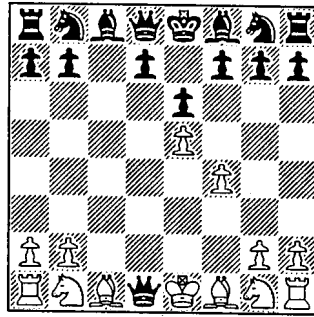
Unlike 1 e4, this does not threaten to give mate next turn, so Black is free to move as he likes, and he made the popular modern choice 2 c5 cxd4 :



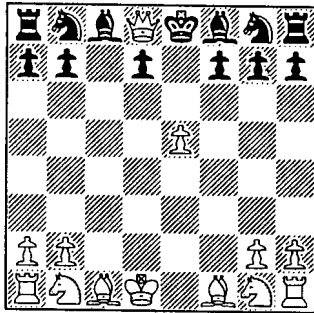
This threatens mates typified by 4 Nc6 Nb4 Qa5 Nxc2, so White is not completely free though the constraint is not a severe one. He actually played 3 e4 e5 f4 :



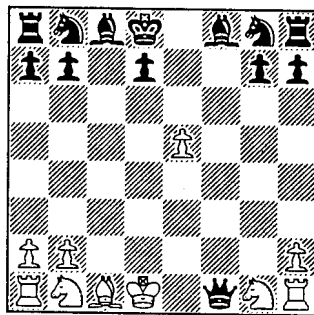
This threatened a host of mates on f7, some in as few as three moves, but Black prevented them all by 4 e6 d3 dxc2 cxd1Q+, blocking the line from c4 and taking the queen off :



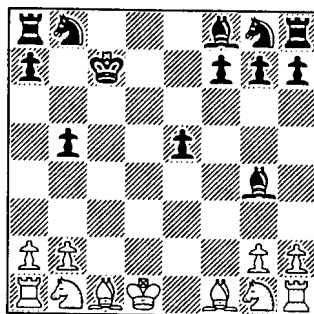
White, with no mate, countered by 5 Kxd1 f5 fxe6 e7 exd8Q+ :



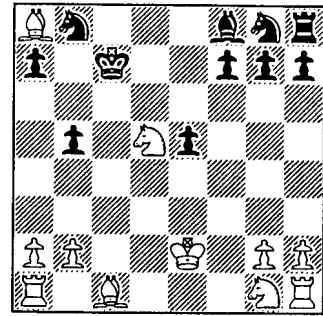
Black must spend a move taking this, but why not 6 Kxd8 f5 f4 f3 fxg2 gxf1Q+, or the same with the h-pawn? Case f5 shown, answers on page 63 :



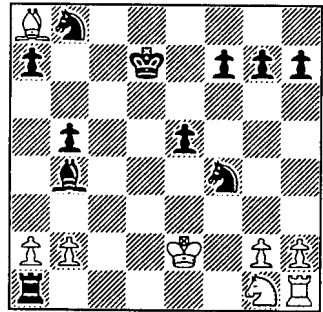
Black actually chose 6 Kxd8 d6 dxe5 b5 Kc7 Bg4+, and the players started skating on very thin ice. White can now mate in 8, but not in 7 :



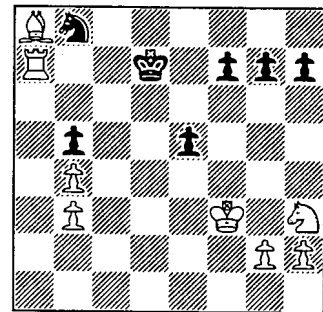
7 Be2 Bxg4 Bf3 Bxa8 Ke2 Nc3 Nd5+, Black can mate in 9 but not 8 :



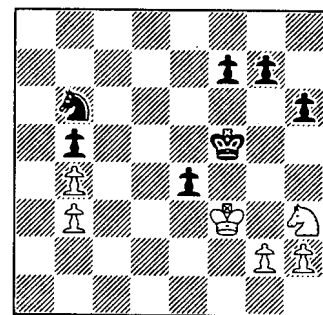
8 Kd7 Nf6 Bb4 Rc8 Rxc1 Rxa1 Nxd5 Nf4+, White can mate in 10 but not (I think) in 9 :



However, White found the decisive sequence 9 Kf3 a3 axb4 b3 Ne2 Nxf4 Nh3 Rxa1 Rxa7+ :



Deprived of promotions, Black could do no better than 10 Ke6 Kf5 Nc6 Nxa7 Nc8 Nb6 Nxa8 Nb6 h6 e4+ :



and White won (answer on page 63). But both sides played well, and where Black went wrong is not obvious.

LOSING CHESS

One of last time's games from the 2001 "First Unofficial Losing Chess World Championship" came down to an ending, and it occurs to me that it might be a good idea to interrupt our presentation of games from this championship and to look in general terms at Losing Chess endings and how to play them. Even between inexperienced players, Losing Chess games often come down to an ending, and a basic knowledge of what to do can be invaluable. Much of my knowledge is due to Fabrice Liardet (though the responsibility for the present text is my own), and as usual I have made use of Stan Goldovski's program *Giveaway Wizard*.

The first rule is that unless you can see your way through to a forced win, it is normally an advantage to have *more* men (or at least more pieces) than your opponent. Look at it another way. In most board games which give the player a choice of move, he who has the wider choice normally has the advantage, and he who has more men on the board normally has more moves available to him. Losing Chess is no exception to this general rule.

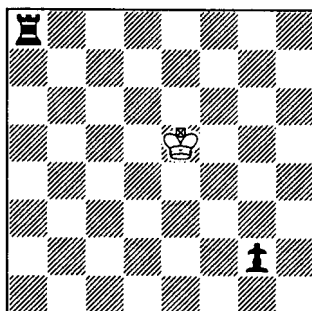
So *don't* sacrifice your pieces unnecessarily, and *don't* come down to one or two men unless you can see how to get rid of these as well. In particular, it is almost always a losing strategy to come down to a single pawn and hope for the best. We have seen several examples in recent issues of *VC*. The future moves of the pawn can be predicted with ease and certainty, and it is surprising how often the opponent can arrange his men so as to have a winning reply to any promotion.

Indeed, while a healthy supply of pieces is usually a blessing in the ending, pawns tend to be liabilities, and you should push any remaining pawns forward as fast as you safely can. As to what you should promote to, it is normally best to choose a rook unless you can see that this will lose, or that some other promotion will lead to a forced win. If a rook will lose, a king is usually the next best choice.

It follows that endings frequently arise in which one side has a king, quite often alone, and the other has a rook and other men. If these men include a pawn, the king will try and give itself away to the pawn, and the result will hinge on whether it can do so. If only pieces are left, some useful general rules are as follows.

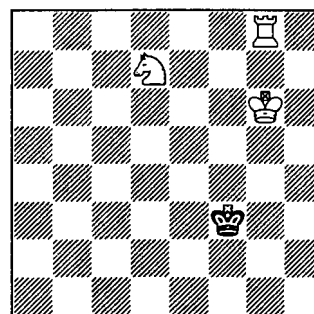
- R v K is a win unless the king can give itself away at once. A common way of winning against a lone king, if a distant pawn means that you cannot organize a total giveaway, is to give away everything bar this pawn and then promote it to a rook.
- 2R v K, 3R v K etc are wins unless the king has an immediate or almost immediate giveaway (say Ke3 v Rc1/Rg1, when Ke2 wins).
- R+B v K is a win, or at least it is if the attacker knows enough to give the bishop away first (B v K is only a draw unless the bishop can give itself away in a move or two).
- R+N v K and R+K v K are only drawn unless the defender can be quickly trapped against the edge.
- If the rook has two or more companions they will probably win, though the play may be difficult. The attacker groups his men just out of range and presses cautiously forward, and the defender's only hope is that his opponent will blunder and allow him to win or reduce material by a sudden thrust.

The wins with 2R v K and R+B v K are particularly important. Consider this seminal position :



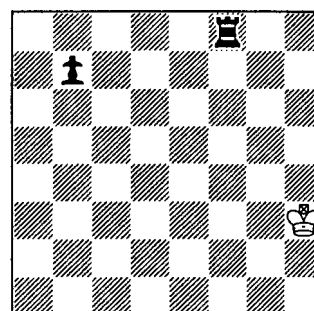
Black threatens 1...g1R winning, and if White plays 1 Kf5 then 1...g1B wins. White can try 1 Kf4, when both 1...g1R and 1...g1B will allow an immediate giveaway, but Black simply temporizes by 1...Ra7 and White has no good move.

Let's illustrate all this with two examples. The first takes up last time's game from where we left off :



White has just promoted his last pawn, and the game concluded 37...Ke3 38 Kf7 Kd3 39 Ke6 Ke3 40 Nb6 Kf2 41 Rd8 Kf3 42 Kd6 Ke3 43 Nc8 Kd3 44 Ne7 Ke3 45 Rc8 Kf3 46 Rb8 Ke3 47 Re8 Kf3 48 Kc5 Ke2 (Black has been forced back to one square from the edge) 49 Kd5 Kd2 50 Rf8 Kc2 51 Nf5 (now d2 is denied to Black) Kb2 52 Rf7 Kc2 53 Ra7 Kb2 54 Rd7 Kc2 55 Rd6 Kd1 (back to the edge, but 55...Kb2 56 Kc5 leads to a win in nine moves) 56 Rb6 Kc1 57 Re6 Kc2 (away from the edge, but only briefly) 58 Re4 Kb2 59 Rd4 Ka2 60 Rc4 (a blind alley) Kb1 61 Rd4 Ka2 62 Ne3 (better!) Ka1 63 Rd3 (another blind alley) Ka2 64 Rd4 Ka1 65 Kc4 and Black resigned. White was working it out as he went along and occasionally he had to go back and try something else, but the overall picture is clear enough.

The second is a study by H. Hofmann, *Feenschach* 1956 :



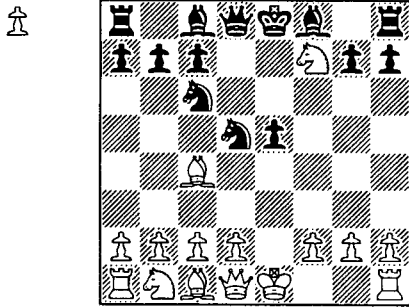
This natural and instructive position is drawn with best play, but the key manoeuvre is very far from obvious and when the study was originally published no solver was successful. See if you can do better.

Answer on page 63.

LIVERISH HOSTAGES

VC 46 featured several games from our recent Hostage Chess postal tournament. Here are three more.

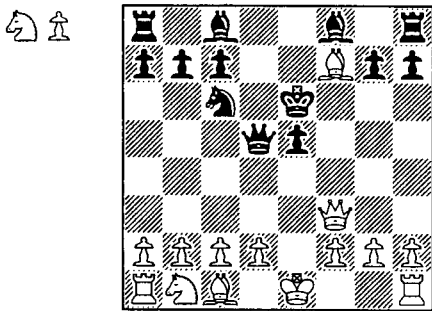
Two of Peter Coast's games started 1 e4 e5 2 Nf3 Nc6 3 Bc4 Nf6 4 Ng5 d5 5 exd5 Nxd5? 6 Nxf7, an opening we knew in my schooldays as the "Fried Liver Attack":



♠ ♠

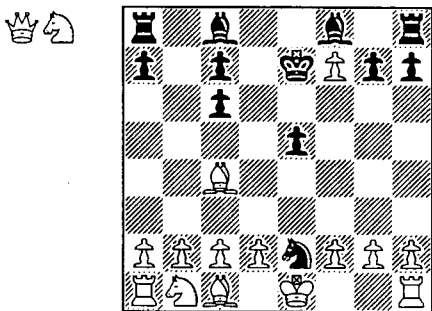
In orthodox chess, I believe that Black can just survive; at Hostage, White appears to have an outright win.

Allan Brown continued with the ordinary line 6...Kxf7 7 Qf3+ Ke6, but at Hostage White plays 8 Bxd5+ and the recapture 8...Qxd5 loses the queen to 9 (N-B)B*f7+ :



♠ ♠

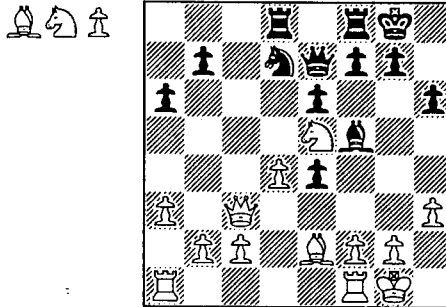
John Leslie tried a counter-attack on White's queen by 6...(P-P)P*e2, but it did him little good. 7 Qxe2 Nf4 (if 7...Nd4 then 8 Nxd8 Nxe2 9 (Q-Q)Q*f7+ Kxd8 10 Qxd5+ etc) 8 Nxd8 Nxe2 9 P*f7+ Ke7 (9...Kxd8 10 (Q-Q)Q*e8 mate) 10 Nxc6+ bxc6 :



♠ ♠ ♠

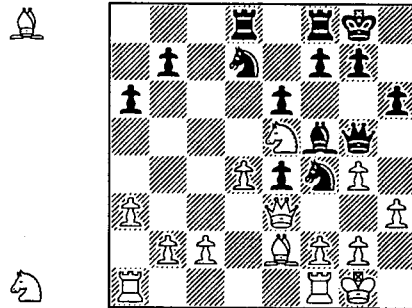
11 (Q-Q)Q*e8+ Kf6 (11...Kd6 12 (N-N)N*e4 mate) 12 Qxc6+ Bd6 13 Qxa8 (Black is now lost on material and his only chance is a queen-dropping mating attack) Nf4 14 Nc3 Nxc2+ 15 Qxc2 (N-N)N*f4 16 N*g8+ and mates (16...Rxc8 17 fxc8(P-N)+ Kf5 18 (P-P)P*e4).

Peter's game as Black against Paul Yearout also had some interesting features. 1 d2 Nf6 2 Nc3 d5 3 Bg5 Bf5 4 Nf3 e6 5 e3 h6 6 Bh4 Be7 7 Be2 0-0 8 0-0 Nd7 9 h3 c5 10 a3 a6 11 Qd2 Ne4 12 Nxe4 dxe4 13 Bxe7 Qxe7 14 Ne5 Rd8 (Peter says that he looked hard at 14...Rfd8 before deciding on this) 15 Qc3 cxd4 16 exd4 :



♠ ♠ ♠

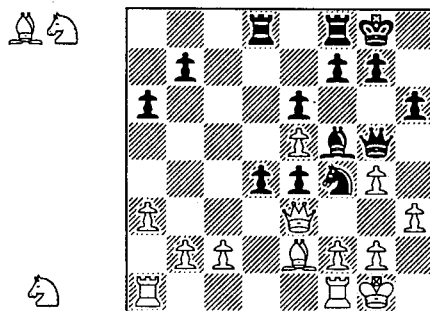
16...(N-N)N*f4 (the first exchange and drop) 17 Qe3 Qg5 18 (P-P)P*g4 :



♠

♠

I think I would have been inclined to drop on g3 instead. It's the knight we want to disturb, and ...PxN would have been a genuine threat whereas ...PxB isn't. 18...Ne5 19 dxe5 P*d4 and Black wins material :



♠ ♠

A move such as 20 Qb3 allows 20...Nxe2+, and 20 Qd2 loses the queen to 20...Nxe2+. White tried 20 Qxf4 Qxf4 21 gxf5 with two pieces for the queen, but the end was swift: 21...(B-B)B*h2+ 22 Kh1 (N-N)N*g3+ 23 Kxh2 (if 23 fxc3 then 23...Bxc3, and as soon as Black's queen is taken he will ransom it and drop it on h2) Nxf1++ and Black resigned (24 Kgl Qxf2+ 25 Kxf2 (Q-Q)Q*g3+ with either 26 Kxf1 (R-N)N*e3+ and mate next move or 26 Kgl (R-B)Be3+).

"Not too bad a game. It starts quietly along orthochess lines but, as usual, Hostage favours the attacker" (PC).

IN THE LIBRARY

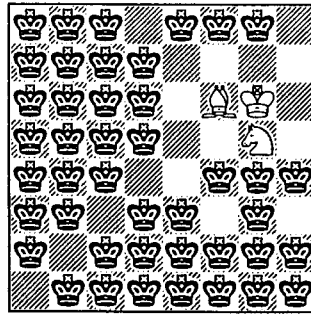
More Kriegspiel Endgames (copies of two articles in the *Chess Amateur*, 1926)

In 1923, the *Chess Amateur* devoted several pages to a complete analysis by H. A. Adamson of the Kriegspiel ending with king and rook against king. The actual result appears to have been known for some years (see for example VC 45 page 11), but it seems that no fully written-out analysis had been published. Of the other elementary endings of ordinary chess, K+Q v K is an easy win even at Kriegspiel and K+2B v K is not too difficult, but K+B+N v K was for many years thought "a draw except in certain limited positions, or at best a matter of luck and chance".

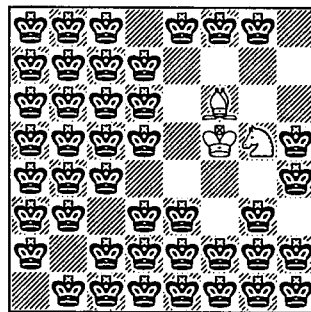
In 1926, four members of the Los Angeles Chess Club, Messrs. Pray, Hubbard, Knox, and Isham, devoted some four months of their spare time to an attack on this ending, and succeeded in showing that White could force mate in all cases though the longest line took about 96 moves "with a chance that we may find some variation that will reduce or lengthen it a few moves". Isham reported their work in an article in the November 1926 issue of the *Chess Amateur*. This made no attempt to give a complete proof, and confined itself to a statement of the result and the setting for solution of some positions allowing a reasonably quick mate. The December issue carried some solutions by Adamson which simplified or shortened their own, and I imagine that a definitive computer analysis, were one to be performed, would show their figure "96 moves" to be too high rather than too low.

A key element of their success was the discovery that in the position shown in the next column, the White king could set out on a probing tour all round the board and not worry about leaving his bishop and knight unguarded. This contrasts with the ending of king and rook against king, when White has to be more careful.

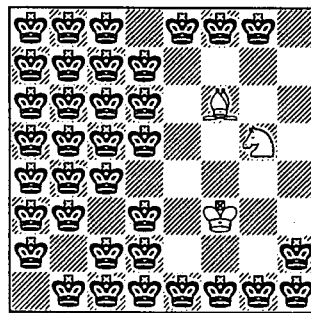
At the start, the Black king may be on any square not under attack :



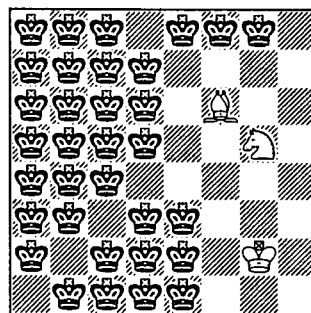
We begin by playing **Kf5** and if we don't hear "No" we can rule out f4 and g4, though of course if he is on h4 he will be able to reply by sneaking up to h5 :



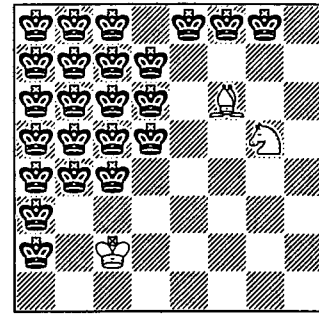
But **Kg4** knocks this out, **Kf3** makes further inroads :



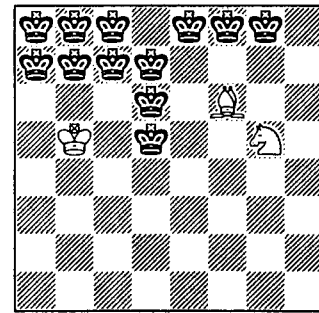
and **Kg2** finishes off the bottom right-hand corner :



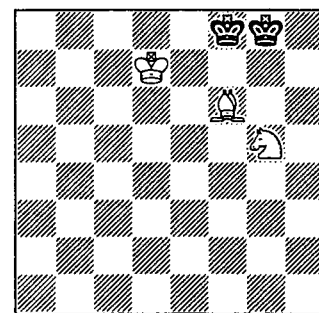
Now **Kf2**, **Ke2**, **Kd2**, **Kc2** rule out all the remaining squares below the diagonal :



and **Kb3**, **Kb4**, **Kb5** start eating into the left-hand side :



Now **Kb6** might allow him to play to c4, but **Kc6** merely allows a6 which we can cope with, and **Kb7**, **Kc7**, **Kd7** leave only two squares open :

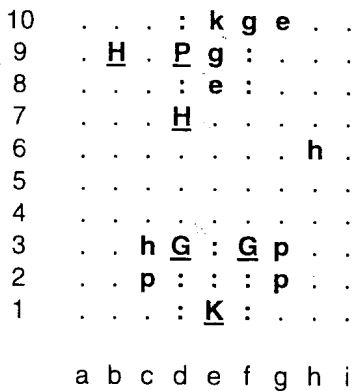


Any further, and we risk stalemate.

Somewhere along the way, we have located him to within a few squares, and all - all! - that remains is to round him up, drive him back, and mate him. Some simple cases are set for solving, and play from the last diagram might go as follows. Play **Ke6** and **Ne4**, and he can be on e8, f8, g8, or h7. Try **Kf7**, and if it's legal he must be on h7 and it's easy (Ng3, Bg5 etc). If not, try **Ke7**; if it's legal (bKg8) he will now have to play ...Kh7, and Kf7 wins as before. If still not, play **Nd6** and if no check announced (bKf8) continue Kf5, Kg5, Kg6, Bd8, Be7 etc; if check (bKe8) we need not go via g5, but can play Kf5, Kg6, Bd8 etc at once.

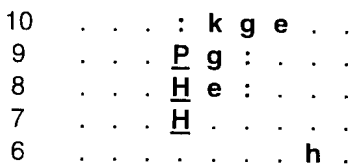
HORSE PLAY IN XIANGQI

Those of us who play XiangQi only occasionally lose almost as many games by treating horses as if they were knights as we do by failing to notice what our opponent's cannons can get up to. The horse does *not* jump; it makes a horizontal or vertical step and then a diagonal step, and the intervening point must be empty.



The example above, from the book *Basic Xiangqi Checkmate Methods* by Zhu Baowei, gives an excellent illustration. Red (capitals, underlined) plays up the board; the king moves one step horizontally or vertically (not diagonally), and is confined to the "palace"; guard one step diagonally, confined to the palace; elephant two steps diagonally, confined to its own half of the board; pawn one step forward in its own half, one step forwards or sideways in its opponent's half, capturing with its ordinary move; kings cannot face each other on a file unless there is at least one man in between. If the horses were knights, Red could play to c9 and give mate, but in XiangQi this isn't even check; the pawn at d9 blocks the horse's move towards e10. So how can we get this pawn out of the way?

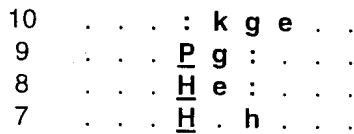
The first step is to play **1 Hb9-d8** :



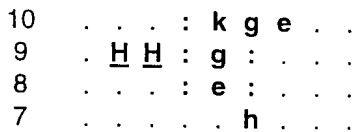
As before, this isn't check, but if

Black takes it, **1...Gxd8**, his guard loses control of f8, and Red can give mate by **2 Hf8** (this time the intervening point is free).

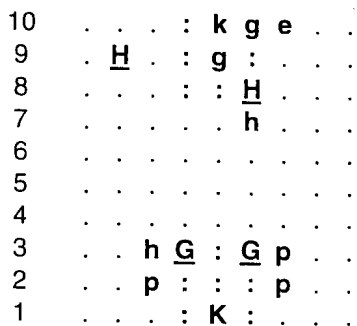
So Black must try something else. He can do nothing very useful, but the given move **1...Hh6-f7** is instructive :



Here we see another difference between horses and knights: the Black horse attacks the Red horse at d8 (e7 is free), but Red does not attack Black (e8 is blocked). But Red can continue **2 Pd9-d10++** (unblocking d9 and so discovering check from the horse at d8 as well as giving its own check) **Ke10xd10 3 Hd8-b9+ Kd10-e10**, and we are effectively back at the initial position without the obstructive pawn. *Now can we give mate by 4 Hd7-c9?*

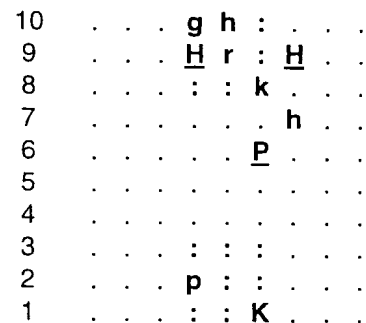
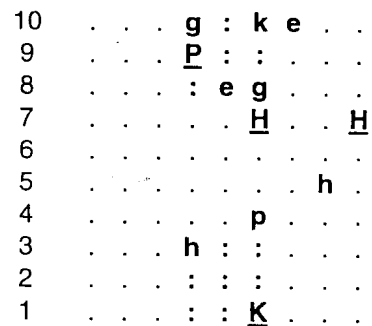
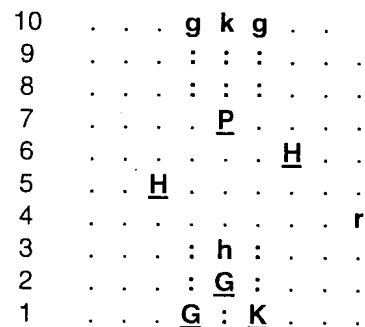
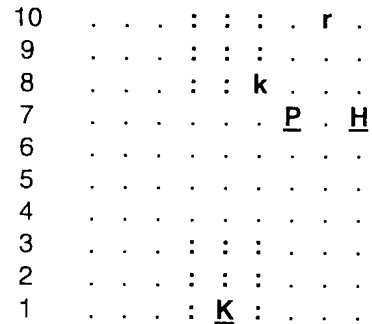


Still no! This time it is certainly check, but it is not mate because Black can play **4...Ke10-d10** (the horse at c9 obstructs its fellow at b9). However, Red has **5 Hc9xe8++** (we shall see why in a moment) **Kd10-e10** (if **5...Kd9** then **6 Hc7** is mate at once) **6 He8-c9+ Ke10-d10 7 Hc9-d7+ Kd10-e10** (**7...Kd9 8 Hb8** mate) **8 Hd7-f8** and it is time to look at the whole board again :



Thanks to Red's removal of Black's elephant, his guard on e9 is pinned (**8...Gxf8** would leave the kings facing each other with nothing in between), and at last we have a mate.

Four more examples appear below. Note that stalemate is a win, and that escape by giving perpetual check is not allowed. The rook moves as our rook. An ending with king and pawn against bare king is won unless the pawn is on the last rank (in the first diagram, supposing no horse and no rook, Red wins by **1 Pg8+ Kf9 2 Pg9+ Kf8/f10 3 Ke2** and stalemate).



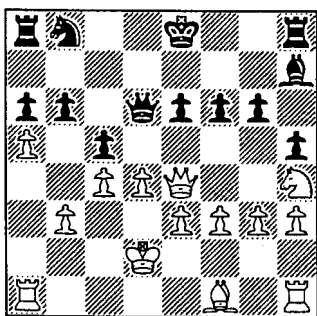
Answers on page 63.

AVALANCHE CHESS

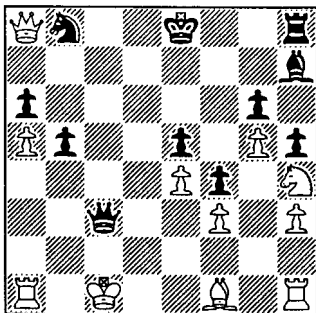
material from Peter Fayers

Avalanche Chess (with each move you pull an enemy pawn one square forward) makes a most enjoyable game and is deservedly popular, but as with many variants it gives rather too great an advantage to White. Peter Fayers recently drew my attention to two versions which address this problem.

In **Balanced Avalanche**, there is no pull on White's first move, and so the normal opening 1 e4/f6 is unavailable. Here are two games won by Alessandro Castelli in 1991. 1 Nf3 (the normal opening 1 e4/f6 being unavailable, White gives first priority to preventing the corresponding opening 1...e5/f3 by Black) Nf6/a3 (2 e4/f6 would now be available, so Black stops it) 2 Nc3/c6 d5/h3 3 d4/a6 Ne4/a4 (the threat is 4...Nxc3/b3 winning a piece and Black can point to the result, but I don't like to see time spent on on tactical threats like this so early in the game unless they lead to a decisive or lasting advantage, and I would prefer to see Black pressing on with his development) 4 Qd3/h6 Bf5/a5 5 Nh4/f6 Bh7/g3 6 Nxe4/g6 dxe4/c3 7 Qxe4/e6 Bb4/c4+ 8 Bd2/b6 Bxd2+/f3 9 Kxd2/h5 Qd6/b3 10 e3/c5 :

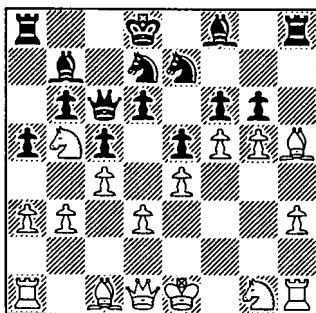


10...cxd4/b4 "!" (it would seem that Black is not sufficiently well developed for a sacrifice like this, but we shall see that the Avalanche rule gives the attacker an extra edge) 11 Qxa8/d3 Qxb4+/g4 12 Kxd3/f5 Qb5/c5+ "?! " 13 Kc2/e5 "?? " Qxc5+/e4 14 Kb2/f4 Qb4+/g5 15 Kc1/b5 Qc3+/- and White resigned :

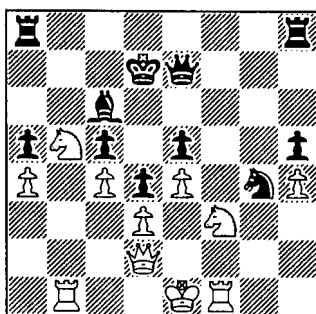


At ordinary chess, White would have little to fear, but at Avalanche every White king move pulls the Black pawn down a rank and this quickly proves fatal.

In the second game, Castelli as White disdained to block f3, and the game unfolded 1 e4 e5/f3 2 f4/f6 h5/f5 3 Be2/d6 Qd7/g3 4 Bxh5+/a6 Kd8/a3 5 Nc3/c6 Ne7/g4 6 Na4/a5 Qc7/b3 7 c4/b6 Nd7/d3 8 Nc3/c5 Bb7/g5 9 Nb5/g6 Qc6/h3 :

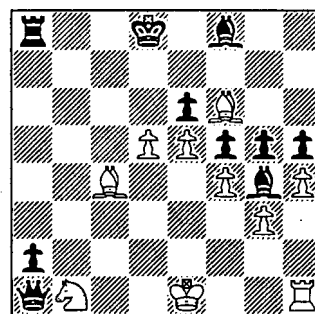


10 gxf6/d5 "!" Nxf6/h4 11 Bg5/d4! gxh5/a4 12 Nf3/- Ng4/f6 "!" 13 fxe7+/- Bxe7/b4 14 bxa5/- bxa5/- 15 Qd2/- Qe6/- 16 Rf1/- Kd7/- 17 Rb1/- Bc6/- 18 Bxe7/- Qxe7/- "?? " :



19 Nbx4/-! exd4/e5 20 Rb7+/- (a standard Avalanche tactic - Black cannot play 20...Bxb7 as the pawn pull to e6 would check his king) Ke6/- 21 Rxe7+/- Kxe7/e6 22 Qg5+/- and Black resigned.

In **Avalanche with Reversed K/Q**, White retains the ability to pull on his first move but the Black king and queen are reversed, thus removing the threat Qh5/f6+. Here is another Castelli win. 1 Nf3/c6 d5/g3 2 d4/h6 Nf6/c3 3 Qa4/a6 Bg4/a3 4 Bf4/h5 a5/b3 5 Ne5/g6 b5/h3 6 Bg2/b4 bxa3/h4 7 Qb4/a4 Nfd7/e3 8 Qb7/c5 Nxe5/e4 9 Bxe5/c4 Qc6/f3 10 Qxc6/e6 Nxc6/f4 (Black decides to stake everything on his Q-side attack) 11 Bxh8/f6 axb3/e5 12 Bxd5/f5 Nxd4/- 13 cxd4/a2 "!! " b2/- 14 Bxc4/g5 bxa1Q/d5 15 Bf6+/- :



If now 15...Ke8/d6, White plays 16 Bxe6/- threatening 17 d7/- mate, and Black cannot do anything about it because any move other than with the bishop on g4 will be self-check. The game actually continued 15...Kc8/d6 16 Bxe6+/- Kb7/d7 17 0-0/-, and Black resigned since any move would pull the White pawn to promotion.

YOU CUT, I'LL CHOOSE

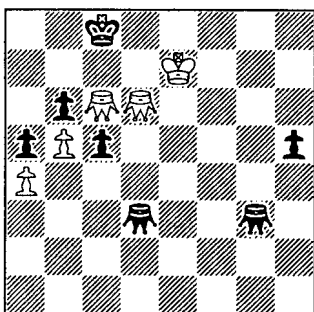
Last time's article "Choose your own men" prompted an offhand question from Peter Fayers: "how about K+8Ps in situ both sides, white has Q plus six minor pieces of his choice on back rank, B has three Qs. No rooks anywhere. Who's your money on?" Answering the question as put, White, but the idea seems to me to have possibilities: one player sets the initial position, not necessarily balanced nor restricted to the standard set of men, and the other chooses which colour he will take. This seems to me to offer everything that randomization does, and a lot more besides. I'm sure the idea has been tried before, but I have looked in the obvious places in the ECV and have failed to find it.

THAI CHESS

based on material from René Gralla

In Thai Chess, the “queen” is a fers which moves one step diagonally, the “bishop” moves one step diagonally or straight forward, the kings start on e1/d8, the pawns start on the third rank and promote on the sixth, and promotion is only to fers.

Last time’s notes on the ending of king and three ferses against king were prompted by the following position, sent by René Gralla from a game played in Bangkok in 2003 :



White was the Thai Chess champion Tor Paknaam, and after 51 Fc6-d7+ his opponent saw that mate was inevitable and resigned (the finish might have been 51...Kb8 52 Kd8 Fc4 53 Fc6 Ff4 54 Fc7+ Ka7 55 Kc8 Fe5 56 Fb8+ Ka8 57 Fb7 mate).

So far so good, but Black’s king is hemmed in by pawns; how many ferses would White need to mate him on an open board?

René thought that four ought to be sufficient, two on light squares and two on dark, and he sent a game of his which had just such a finish. But experiment convinced me that three would do, and Marc Bourzutschky’s computer confirmed. Last time’s “The End Is Nigh” gave the longest win; this time, let us look at the winning procedure.

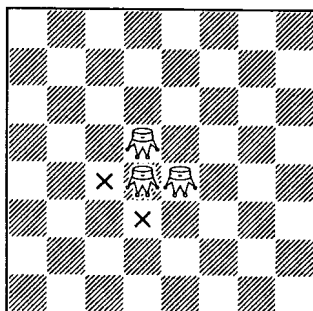
Paul Byway identifies three stages in the winning process:

- gathering;
- driving;
- mating.

The gather is in principle easy, the attacker simply playing to group his forces together, but a king can hunt down a lone fers and so the defender

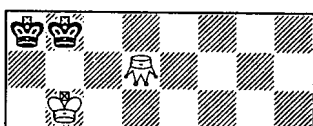
may be able to escape by winning a fers before the gather is complete. Blunders apart, this is the only case in which the ending is not won.

Once the attacker has gathered his forces, he can start the drive. The key to this is that three ferses in an L are self-supporting :

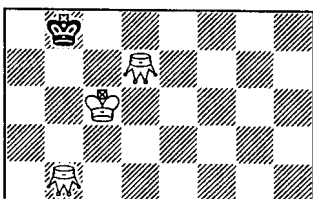


The two light ferses defend each other, and they also control the only squares from which the enemy king can get at the dark fers. The attacker can therefore deploy his king and his ferses as two independent units, and it is easy to drive the enemy king back to a corner.

It remains to give the mate. Unless there is an opportunity for a short cut, the ultimate effect of the drive is to give a position such as



where the enemy king is confined to a8 and b8. If the remaining ferses are one light and one dark, they can simply be brought up to b7 and c7. If both are dark, the simplest method is probably to play one of them to b4, to tempo with the other until the enemy king is on b8, and then to play Kc6 :



Black must now move to the a-file, and White can play his light fers to c8 and b7. This confines the Black king to a7 and b8, and the dark ferses can be brought up to b6 and c7.

All this is systematic and easily learned, and with promotion allowed only to fers we would expect it to be a common way of clinching a won game. Paul and I were therefore very surprised to be told by René that the rules which limit the number of moves available to mate once the opponent is down to a bare king would often prevent the mate from being reached in practice. But I don’t think any of us has studied the rules in their original language, and summaries by foreign-language observers are not always reliable in matters of detail. We find it difficult to believe that players are genuinely barred from realising wins which must turn up quite frequently in the ordinary course of play.

I know nothing about the origins of Thai Chess, but it is so similar to the Shatranj from which our own chess evolved that a connection must be suspected. The only differences appear to be as follows:

- Thai kings are set crosswise (e1/d8);
- the feeble Shatranj “alfil” becomes the much more useful Thai bishop;
- Thai pawns start on rank 3 and promote on rank 6.

These points apart, the games appear to be identical.

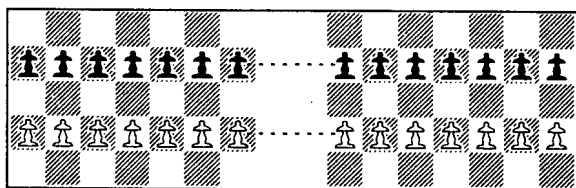
The crosswise setting of the kings is a natural change since it enables the ferses to attack each other, and the other changes are explicable as an independent and in some ways more natural way of speeding up the game than the queen-and-bishop changes that produced our own chess. I therefore suspect that our chess and Thai chess are in fact first cousins, despite the apparently forbidding geographical separation. Perhaps Alex Kraaijeveld has a view on this.

Paul Michelet, who sends me orthodox chess endgame studies from Bangkok, has watched people playing, and he tells me that the game is very popular. I can well believe it. It strikes me as an excellent game, which I wish I had time to explore more deeply. And the Thai style of development (king on the second rank, back rank clear for the rooks) has been standing me in excellent stead in some games of Modern Courier Chess!

WINNING WAYS

The years 2001-4 saw the appearance of a second edition of *Winning Ways for your Mathematical Plays* by Elwyn Berlekamp, John Conway, and Richard Guy. The original edition appeared before VC was founded, and although the chess-related material is only a small part of the whole we ought to give it a mention. *Winning Ways* itself contains slightly over a thousand pages, and there have been two sequels, *Games of No Chance* and *More Games of No Chance*, which will be discussed next time.

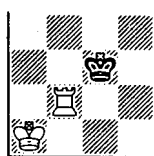
Our strict brief is "variant chess" and the heading "Chess" in the indexes yields a mere thirteen references, though there are many other games which use individual chessmen on rectangular lattices. The first of the references to appear in the book is the so-called "Dawson's Chess", which is a version of a Losing Chess problem set by T. R. Dawson in *The Problemist Fairy Supplement* in 1934 :



On a board of arbitrary width n , set up two lines of pawns one rank apart; who wins? Dawson thought he had found a formula valid for all n , but by the time he came to repeat the problem in *Caissa's Wild Roses* a year later he had realised his error; a complete solution is not yet known, or at least has not been brought to my attention, and may well not exist. I ran the problem up to $n = 118$ in 1990 and it could be carried on to 200 or perhaps 300 on modern equipment, but this was mere number-crunching and threw no light on what would happen in general.

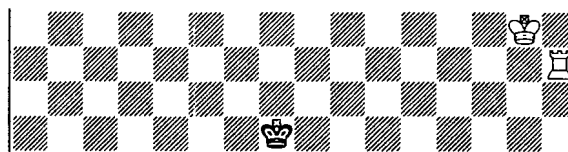
This is the problem as Dawson set it. In the world of mathematical games, the normal object of play is to leave your opponent without a move, and leaving yourself without one is known as "misère play". The "normal play" version of Dawson's problem was solved for all n by Richard Guy in 1949, and both the formula and the proof are relatively straightforward. At the time of writing, it is the standard example of a game which has been completely and systematically resolved under normal play but remains unsolved under misère play.

Two other index entries under "Chess" bring us to "Simon Norton's Problem" and "Leo Moser's Problem". "Norton's Problem" (I suspect it is older) is very simple :



Can White force mate on this quarter-infinite board, and how far must he go before he can rein Black in? In Moser's

problem, the Black king is already panned in, and the task is to mate him without moving the rook prior to the mate:



Answers on page 63.

These have all been recognizable chess derivatives, but there are many other games in the book which use ordinary chessmen on a square lattice board. Among them are (a) Wythoff's Game, which can be played with a single queen on an arbitrarily large chessboard, the players moving it alternately, the only permitted moves being in the directions N, NW, and W, and the object being to be the player who can to move it to the top left-hand corner (analysis shows that there is one good square in each row or column however distant and you win by playing to it unless you are already on it, in which case you lose); (b) Horsefly, in which the pieces have six of the eight moves of a knight and the object is to be the first to get a horse to one of a set of winning posts; and (c) Kinggo, in which one player has a king in the middle of a large board and tries to reach the edge, and his opponent places or moves blocking stones so as to prevent him. Some of the games are easy, and can quickly be analysed from first principles; some appear bewildering and structureless, but there is way of looking at them which reveals their secrets; some are genuinely bewildering.

In short, a treasure-house of material, and if it were not for the price (of which more below) I would advise every games enthusiast to go straight out and buy it. However, it has to be said that the style of presentation will not be to all tastes. The book is fundamentally mathematical and the rigorous logic of formal mathematics will never be easy to read, but highly condensed notations are also used in purely descriptive passages and the reader has to spend rather too long looking back to see what they mean. Again, some of the writing is dazzlingly clever, with intricate and spectacular wordplay, but there are places where something a little less coruscating might have been clearer.

And I have two serious practical regrets: the price, at rather more than £100 for the set, is about twice what it should be, and there is no convenient guide to what is new. If a holder of the previous edition is expected to pay over £100 for what is essentially a reprint with some new material, the least he is entitled to expect is a list at the front saying what has been added or significantly changed. It would only have taken a few days to produce, and if the original authors were unwilling to provide it the publisher should have found somebody competent to do it for them.

In summary, we have a classic, whose place in the literature of intellectual games is assured; but parts of it are not as easy to read as they might have been, and future generations may regard it more as a quarry from which to draw material for simpler presentation elsewhere than as something to be read right through as it stands.

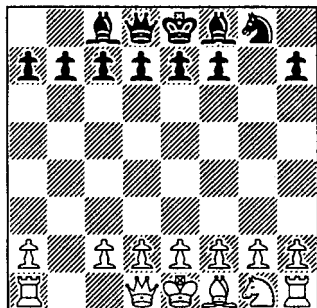
PROOF GAMES

by Peter Fayers

In the previous article I mentioned my misunderstanding of the Augsburg rules, so I thought this time I would demonstrate the correct rules.

In Augsburg, any unit except a King may move onto the square occupied by a friendly unit(s). There is no limit to the number of pieces forming the stack; Kings may not be combined. Combined units may move as any of their component pieces. A piece or pieces may split off from the stack and leave the remainder behind. The Queen is considered as a combined Rook plus Bishop, although shown as Q in the diagram (which leads to some sneaky tricks....)

14 - Paul Raican
feenschach 1999



After White's fifth. Game score?
Augsburg Chess

How to go about solving this one? First notice the long diagonal a1-h8; three pieces are missing, as is Bc1. So let's try White playing 1 Bxb2, 2 (BP)xg7, 3 (BP)xh8 for White; now the pawn promotes - to what?

Leave that for the moment, and consider a8 and b8 both missing. We don't have time to get a White piece in there to capture them, but they can escape. Nb1 also missing suggests Black played 1 Rxb8, 2 (RN)xb7, 3 (RN)xb1 leaving the Pawn behind.

All we have to do now is to make both White's (B+X) and Black's (R+N) units disappear, and Paul uses the Pronkin theme (discovered by the Russian Dmitri Pronkin). In this theme, a unit apparently on its game-

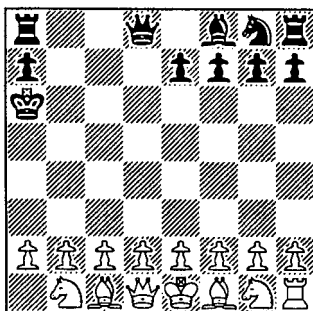
array square is in fact promoted, the original incumbent having been captured. In this problem the full solution runs 1 Bb2 Rb8; 2 BPxg7 RNb7; 3 BPxh8=BR RNxb1(Pb7); 4 BRa1 RNxd1+; 5 RBxd1(Ra1). The original wQ has been captured and replaced by a (BR) combination.

(There is another useful solving tip shown here - if all remaining White units are in their game array position, one or more wPs are missing, and White moved last, suspect a Pronkin; these are the classic signs).

The paradoxical feature of this problem is that, whereas the game score is unique, we cannot say whether Ra1 is original or promoted!

Now one for you to solve.

15 - Arno Tüngler
Commend, feenschach 1999



After White's seventh. Game score?
Augsburg Chess

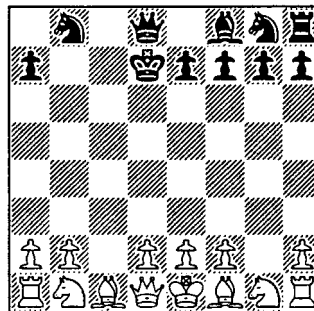
To clarify the rules, if a combined unit contains a rook that has not yet moved, then that rook can castle, and in doing so can take other components of the unit with it. This leads to the reverse paradox; the bQ has moved to a8, then a bQ has moved back to d8 (by castling). This time round we can say categorically that it is the original Rook from d8 that is now at a8 - only the a8 Rook was allowed to castle.

If you're still stuck, read my opening comments about the diagram Queen; in this problem, neither Q in the diagram has its original Rook component!

Now we slow things down a bit, to a variant where only one piece moves at a time, and then only on half of the board; Monochrome. In this, moves are only legal if they are to the same colour square. Knights are immobile,

while Bishops are unaffected. You shouldn't need a hint for solving this - I've already given you one!

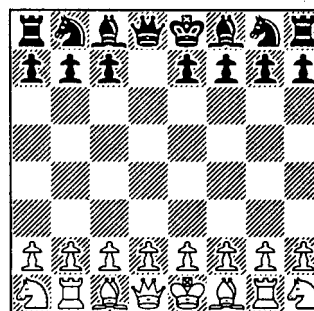
16 - Mario Velucchi
Phénix 1998



After White's seventh. Game score?
Monochrome

The very first VPG I showed in this column was by John Beasley, using Optional Replacement Chess (ORC), where a unit, when captured, may be replaced on any vacant square (Pawns not on 1st or 8th ranks). In the very similar SuperCirce, captured pawns *may* be placed on their 8th rank, where they promote.

16 - Oliver Sick
Commend, Andernach TT, 2003



After Black's fourth. Game score?
SuperCirce

Solving this follows the same logic as John's ORC one, with the piece type reversed. Instead of bN capturing the wQ and replacing it on home square to be captured again, this time it is the bQ doing the same to a wN. In the meantime, the captured bP has to be promoted to help White juggle around his two Rooks and the other Knight. Try it - it's only four moves long!

Solutions next time.

CUBIC DEVELOPMENTS ...

Readers who have been with VC from the outset will have noticed a steady stream of "Cubic Chess" games invented by Vladimír Pribylinec of Slovakia. Although differing extensively in detail, they use common equipment and have several features in common:

- the pawns, knights, bishops, and rooks are replaced by cubes having symbols for these pieces on four of their faces, the other two faces being blank;
- each cube temporarily represents the piece featured on its uppermost face;
- instead of making a normal move, a player may rotate one of his cubes so that it displays a different face;
- there are rules which prevent a player from simply rotating all his cubes to rooks.

In the original version (VC 2 pages 16-17, repeated in the *Encyclopedia of Chess Variants*), the pieces were given values $P = 0$, $N = B = 1$, $R = 2$, and a player could not expose faces to a total value of more than 8; in the later versions (VC 24 page 82 and VC 29 page 9) the rules were somewhat more complicated.

The author has now contacted me with a new version in which the rules are different again. A set including queens is used, the opening array is as normal, but when a knight, bishop, or rook (not a pawn) is captured it is put into a "stock" and the player who captured it can subsequently rotate one of his cubes to show a man of the same kind. So at the start I cannot rotate anything at all, but if I capture a bishop I can subsequently rotate one of my other cubes (probably but not necessarily one showing a pawn) to show a bishop, and can then use it accordingly. However, I can only do this once. After I have used a bishop in the stock in this way, it is removed from the stock, and if I want to rotate another cube to show a bishop I have to capture another bishop first.

All this may sound rather complicated and to some extent it is, but there is another way of looking at it which may be simpler: what we seem to have here is not so much a new development of Cubic Chess as a version of Chessgi. In Chessgi, a captured man changes colour and is put at the disposal of its capturer, who can subsequently drop it on a vacant square instead of playing a normal move. Here, a player replaces an existing man (not the queen) instead of dropping his new man on an empty square, and it is only knights, bishops, and rooks that change sides; other men are removed as normal, as is the man displaced by a replacement. But while the rules of procedure may be different if the game is played as a Chessgi variant, the effect on the board appears to be the same, and (whisper) I suspect that the game may be more easily played using homemade Chessgi men, two-sided flat discs with the symbol for a White man on one side and a Black on the other, than with the cubes for which it was invented.

The author has sent me several game scores, one of which comes down to an ending with $R+N \text{ v } R$. In ordinary chess this is drawn, because the attacker cannot afford to exchange rooks. In the present game there are two cases,

and both appear to be wins. If the attacker can rotate his knight to a rook, he does so, and he then plays out the normal win with two rooks against one (an ability to rotate won't help the defender). If the attacker cannot rotate his knight, he invokes Plan B: he presses forward, and if the defender is not to retreat indefinitely he must eventually oppose rooks and allow an exchange. Now there is a rook of each colour in the stock, and the attacker *can* rotate his knight. $R+B \text{ v } R$ would appear to be won similarly.

The game is available from the author at **Závodná 460, 027 43 Nižná nad Oravou, SK - Slovakia**, and comprises 30 neat and attractive cubes (two kings and 28 rotatables) packed in a simple but sturdy box. For myself, the equipment appeals more than the present rules do, but once a set has been obtained it is easy enough to experiment. A trilingual web site <www.cubiccheckers.com> contains further information, including rules for a draughts (checkers) game using the same men together with a computer program against which the player can pit himself, but this appears to be based on the Central and Eastern European form of draughts rather than the English form and I have not investigated it.

... AND A MATTER OF TASTE

We have all heard of the game in which the men are represented by bottles ranging from a miniature whisky (the pawns) to a magnum of champagne (the queen) which have to be drunk on capture, and we all know the legend that Lasker, invited to play against Mieses, opened with the beginner's line $1 \text{ e4 e5 } 2 \text{ Qh5}$, replied to Black's $2... \text{Nc6}$ or $2... \text{d6}$ by 3 Qxf7+ , drank his whisky, watched as his opponent collapsed under the influence of the forcibly captured champagne, and claimed the game on time. (I have heard this from more than one source, but even so I imagine that it is picturesque invention rather than fact.) Alex Kraaijeveld recently sent me an article from *Whisky Magazine* which recounted a similar experiment.

In Alex's game, his opponent was a computer whose playing level was decreased from the keyboard each time it made a capture (the pouring of vodka on computer chips is not really recommended), and his opponent's men were glasses filled with malt whiskies chosen by his lady from among those on his own shelves. Each man was represented by a glass containing a different whisky, one for the king, one for the queen, one for the rooks, and so on, and the task was not just to win the game but to identify each of the six whiskies. The first task was duly achieved (for the moves, see issue 44 of *Whisky Magazine*, pages 40-42); the second? Four out of six (his lady had cheated in the matter of the queen and had used something which wasn't really a whisky, but he got it anyway), which wasn't bad if perhaps not of the level which Dorothy Sayers would have claimed for Peter Wimsey.

I might add that Alex appears singularly fortunate in his choice of lady. In my experience, such persons are far more likely to discourage the consumption of whisky than to facilitate it!

MATING ON CIRCULAR AND CYLINDRICAL BOARDS

material from Marc Bourzutschky

The game of Circular Chess (see for example VC 44 page 57 and VC 46 page 24) is played on a board consisting of four concentric 16-square rings, and some of the basic endgame results on this board are quite different from those of ordinary chess. In particular, K+R, K+2B, and K+B+N cannot force mate against a lone king, and Q v R is only a draw. A competitor in the 2003 Circular Chess Championship even gave up as drawn a position with a material advantage of Q+B v R, having made several unsuccessful attempts to win the rook, and I remarked in VC 44 that I had failed to prove him wrong.

This remark prompted Marc to examine the ending by computer, and he has generated a complete set of five-man pawnless endings on both this and the 8 x 8 "cylinder" board, moves being counted both to capture and to mate. Here are some of his results:

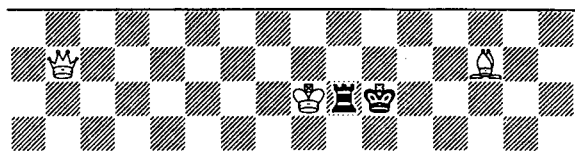
On the 16 x 4 circular board

- Q+B v R is a general win.
- Q+R v Q is a general win.
- 2R v R has the longest winning line (49 moves), but is not a general win.
- K+3N, K+B+2N, K+2B+N (unlike bishops), and K+3B (one pair unlike) can all mate a lone king (confirming pre-computer analysis).

On the 8 x 8 cylindrical board

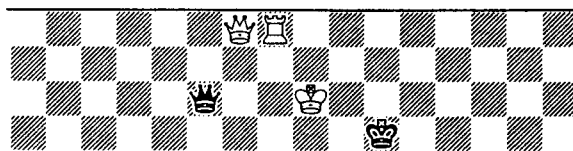
- Bishops are much more powerful (K+2B can mate a lone king, and 2B win against N in at most 18 moves).
- The longest win (103 moves) occurs in Q v 2B, which appears to be a general win.
- Q+B v Q, although not a general win, offers wins in up to 79 moves.
- R+N v B is a win, but can take up to 63 moves.

The 16 x 4 circular board

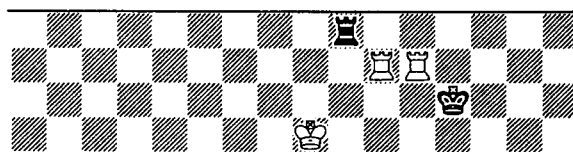


Hitherto, we have normally represented this board by showing two sets of files which are assumed to be joined top and bottom (which gives the pawns their normal orientations and powers of movement), but in the present examples there are no pawns and it is more convenient to represent the board by a single horizontal strip, the a and p files being assumed contiguous. The diagram shows the

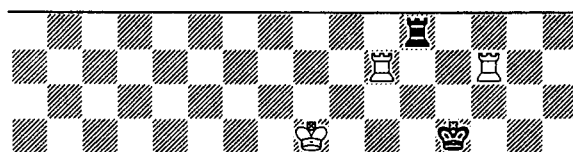
longest win with Q+B v R: 1 Kh1 Rj1+ 2 Kg2 Rj2+ 3 Kf1 Rj1+ 4 Ke2 Rj2+ 5 Kd1 Rj1+ 6 Kc2 Rj2 7 Kb1 Rj1+ 8 Ka2 Rj2+ 9 Kp1 Rj1+ 10 Ko2 Rj2+ 11 Kn1 Rj1+ 12 Kn2 Rj2+ 13 Bo2 Ri2 14 Qe3 Kk1+ 15 Ko3 Kj2 16 Qe4 Ri3+ 17 Kn4 Kj3 18 Qh1+ Kj2 19 Bn1 Ri4+ 20 Km3 Ri3+ 21 Kl2 Ri2+ 22 Bm2 Kj3+ 23 Kk1 Ki3 24 Qg1+ Kh3 25 Bl1 Ra2 26 Bk2 Kh4 27 Bj1 Rp2 28 Qe3 Ki4 29 Qa3 Rm2 30 Qg3 Rm1+ 31 Kj2 Rm2+ 32 Kk3 Rh2 33 Qg4+ and mate next move.



The longest win with Q+R v Q, "!" denoting a unique best move: 1 Kj3! Qk2+ 2 Kj4! Qj2+ 3 Kk4! Qm2+ 4 Kl4! Qn2+ 5 Km4 Qo2+ 6 Kn4 Qp2+ 7 Ko4 Qo2+ 8 Kp4 Qb2+ 9 Ka4 Qc2+ 10 Kb4 Qd2+ 11 Kc4 Qc2+ 12 Kd4 Qd2+ 13 Ke4 Qc2+ 14 Ke3 Qc3+ 15 Ke2 Qc2+ 16 Kf1 Qb1+ 17 Kg2 Qc2+ 18 Kh3 Qd3+ 19 Ki4 Qf1+ 20 Rh3! Ql1+ 21 Rj3 Qi1+ 22 Kj4 Qh2+ 23 Ri3 Ql2+ 24 Rk3+ Kj2 25 Qh4+! Kj1 26 Qh3+ Kj2 27 Qj3+ Ki1 28 Qn3 Qm1 29 Qi3+ Kh1 30 Qj3+ Kg2 31 Qg3+ Kh1 32 Ki4 Ql1+ 33 Kh4 Qd1 34 Rh3+ Ki2 35 Rh2+ Kj1 36 Qj3+ Kk1 37 Qk2 mate.

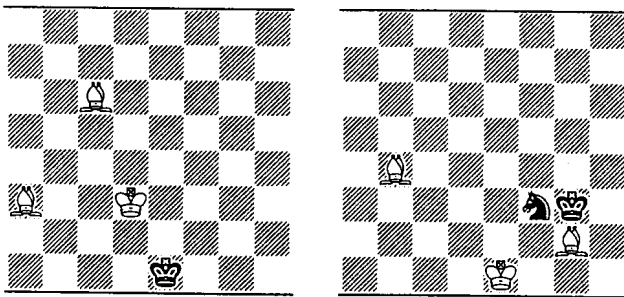


2R v R is not a general win, but there is an amusing "leapfrog" or "staircase" manoeuvre: 1 Rkm3+ Kn2 2 Rln3+ Ko2 3 Rmo3+ and soon round to 10 Rdf3+ Kg2 11 Reg3 mate. This manoeuvre and its threat feature prominently in the longest win :

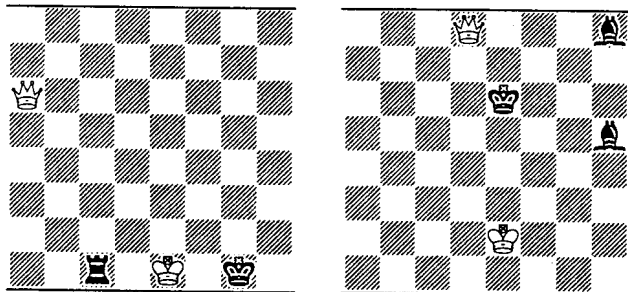


1 Rkm3+! Kl1 2 Kj1! Rj4+ 3 Ki2 Rl4 4 Kj3 Kl2 5 Kj2 Rj4+ 6 Ki1 Ri4+ 7 Kh1 Rh4+ 8 Kg1 Rg4+ 9 Kf1 Rf4+ 10 Ke1 Re4+ 11 Kd1 Rd4+ 12 Kc1 Rc4+ 13 Kb1 Rb4+ 14 Ka1 Ra4+ 15 Kp1 Rp4+ 16 Ko1 Rb4 17 Rnl3+ Kk2 18 Rlk3+ Kj2 19 Rmj3+ Ki2 20 Rki3+ Kh2 21 Rih3+ Kg2 22 Rjg3+ Kf2 23 Rhf3+ Ke2 24 Rfe3+ Kd2 25 Red3+ Kc2 26 Rdc3+ Kb1 27 Rg1+ Kb2 28 Rp3! Ro4+ 29 Kp1 Rl4 30 Rg2+ Kb1 31 Rn3 Rl1+ 32 Ko2 Kc1 33 Rnn2 Rh1 34 Rp2 Kd1 35 Kn3 Rh3+ 36 Km4 Rh4+ 37 Kl3 Rh3+ 38 Kk4 Rh4+ 39 Kj3 Rh1 40 Rnd2+ Kc1 41 Rdc2+ Kb1 42 Rcb2+ Ka1 43 Rba2+ Kb1 44 Rpb2+ Kc1 45 Rac2+ Kd1 46 Rbd2+ Ke1 47 Rce2+ Kf1 48 Rdf2+ Kg1 49 Reg2 mate.

The 8 x 8 cylindrical board



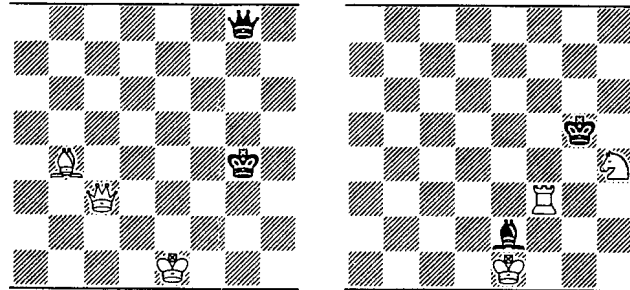
The bishop is much more powerful on this board, as is shown by the example on the left: 1 Bh4+ Kd1 (Bc6 guards f1) 2 Ba4 mate (Bh4 guards c1). In general, the bishops mate a lone king in at most 14 moves. Without the near-fortress in the corner of the ordinary board (Kb3 shielding Nb2, given as drawn by Kling and Horwitz in 1851 and not proved otherwise until the computer analyses of Comay and Thompson in 1983), a lone knight succumbs to the bishops in at most 18 moves: 1 Kf1! Nh2+ 2 Kg1! Nb3 3 Bb7 Nd4 4 Bh2+ Kh4 5 Kf2 Nf5 6 Kf3 Nh6 7 Bc6 Kg5 8 Be7+ Kh5 9 Kf4 Kg6 10 Bc1 Kh7 11 Kg5 Nf7+ 12 Kf6 Nd6 13 Bf4 Nc8 14 Kf7 Kh8 15 Bh1 Na7 16 Be4 Nb5 17 Be3+ Na7 18 Bd4 mate.



While not a general win, Q v R has wins up to 16 moves to capture, as in the example on the left: 1 Ke2! Rh1 2 Kf3! Rh3+ 3 Kg4! Rh2 4 Kg3 Rg2+ 5 Kf3 Rf2+ 6 Ke3 Rh2 7 Qg8+ Rg2 8 Qb8 Kh1 9 Kf3! Ra2 10 Kg3 Ra3+ 11 Kh4! Ka2 12 Qg8+ Kb2 13 Qg2+ Kb3 14 Qh1+ Ra2 15 Kh3! Kc2 16 Qxa2+ and mate in six more moves.

The longest 5-man win is Q v 2B in 103 moves to capture: 1 Kf1! Bf6 2 Qa8! Bf7 3 Ke2! Ke5 4 Qa5+ Ke4 5 Qb4+ Kf5 6 Qc5+ Ke4 7 Qe3+ Kd5 8 Qh6 Ke5 9 Qh2+ Kf5 10 Qf2+ Ke5 11 Qc7+ Ke6 12 Qc4+ Ke7 13 Qh7+ Ke8 14 Qb1 Ke7 15 Qg1+ Kd7 16 Qf8 Ke6 17 Kf3 Bd1+ 18 Kg3! Be5+ 19 Kh3 Bg6 20 Qc8+! Kf6 21 Qc5! Be8+ 22 Kh4 Ke6 23 Qb6+ Kf5 24 Qa5+ Ke6 25 Qa6+ Ke7 26 Qb6 Bf6+ 27 Ka5 Bd7 28 Kh6 Bf5 29 Qc6 Be5 30 Kg5 Bd7 31 Qh6 Bb2+ 32 Kg6 Be8+ 33 Kf5 Bc2+ 34 Kg4! Bd1+ 35 Kh3 Be8+ 36 Kg3 Bf6 37 Qe1+ Kf7 38 Qh1+ Kg7 39 Qb7+ Kf8 40 Qh7 Bf7 41 Qe4 Kg7 42 Qe1+ Kh7 43 Kg4 Bg6 44 Qf8! Bh8 45 Qh2+ Kg7 46 Qb4+ Kh7 47 Qh4+ Kg7 48 Kf4 Ba7+ 49 Ke5! Bb8+ 50 Ke6 Ba7 51 Kd6 Bh7 52 Qa5+ Bh6 53 Qb6 Kg6 54 Kd5+ Kh5 55 Qb3+! Kh4 56 Qb2+ Kh5 57 Qh2+ Kg5 58 Qe7+ Kg6 59 Qe4+ Kg7 60 Qg2+ Kf6 61 Qb2+ Kf7 62 Qb7+ Kg6 63 Qb1+ Kg7 64 Qb6 Bg5

65 Ke6 Bg6 66 Qa5+ Bh6 67 Qc7+ Kg8 68 Qb7 Kh8 69 Kf6 Ba8 70 Qa6 Bc3+ 71 Kf7 Bc2+ 72 Ke6 Bb1+ 73 Kd5 Ba8+ 74 Kc5 Bf8+ 75 Kd4 Bg7+ 76 Ke3 Bh7 77 Qb6+ Ka8 78 Kf3 Bh8 79 Qc6+ Ka7 80 Kg4 Be2+ 81 Kg5 Bb2+ 82 Kg6 Bh7+ 83 Kf7 Bh8 84 Qc5+ Ka8 85 Qc7 Ba6 86 Qd8+ Ka7 87 Qc1+ Ka8 88 Qh1+ Bb7 89 Qb3 Ka7 90 Kg6 Be4+ 91 Kh5 Bb7+ 92 Kg5 Ka6 93 Qh5+ Ka7 94 Qh2 Ka8 95 Kg6 Bd1+ 96 Kh6 Ba7+ 97 Ka5 Bc8 98 Qb2 Bb8 99 Qc2+ Kb7 100 Qh7+ Kc6 101 Qb5+ Kc7 102 Qb6+ Kd7 103 Qxb8.



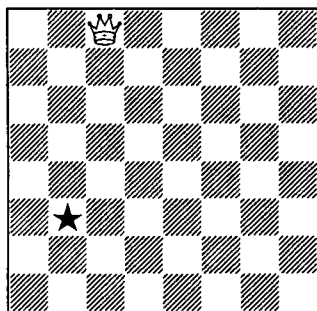
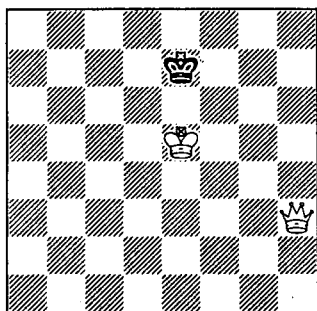
The left-hand diagram shows the longest win for Q+B v Q, 79 moves to capture: 1 Qd4+! Kf5 2 Qf2+! Ke4 3 Qh4+! Kf5 4 Qa5+ Ke4 5 Qa4+ Kd5 6 Qd7+! Ke4 7 Qb1+ Qd3 8 Qg4+! Kd5 9 Qb7+! Ke6 10 Qc6+ Kf7 11 Qh1+! Kf6 12 Qh8+ Kf7 13 Qf8+ Ke6 14 Qe8+ Kf6 15 Be7+ Kg7 16 Qf8+ Kh7 17 Qf7+! Kh6 18 Qh1+ Ka5 19 Qh4+! Ka6 20 Qg4+ Ka5 21 Bb4+ Kb6 22 Bg1+! Ka5 23 Bf2+ Kh6 24 Qh4+ Kg7 25 Qe7+! Kh6 26 Qf6+ Kh5 27 Qh4+! Kg6 28 Qa4+! Kg7 29 Ba5+! Kf6 30 Bh4+ Ke5 31 Qe8+ Kf4 32 Bc7+! Kg5 33 Qg2+ Kh5 34 Qh1+ Kg5 35 Qh4+ Kg6 36 Qa4+! Kf6 37 Ba1+ Ke7 38 Qh4+ Ke8 39 Qh5+ Kd8 40 Qa5+ Ke8 41 Qe5+ Kd8 42 Qc7+ Ke8 43 Qc6+ Kf7 44 Qf6+ Ke8 45 Qe6+ Kf8 46 Bh2+ Kg7 47 Bb4+ Kh8 48 Qh1+ Ka7 49 Bg1+ Kb8 50 Qh8+ Kb7 51 Qb6+ Kc8 52 Qc6+ Kd8 53 Bf2+ Ke7 54 Bh4+ Kf7 55 Qh1+ Kf8 56 Ba5+ Ke7 57 Qb7+ Ke6 58 Qc8+ Ke5 59 Qh8+ Kf4 60 Bc7+ Kg4 61 Qh4+ Kf5 62 Qh5+! Ke6 63 Qe8+! Kf6 64 Bd8+ Kg7 65 Qe7+ Kh6 66 Qg5+ Kh7 67 Qh5+ Kg8 68 Qh1+ Kf8 69 Qh8+ Kf7 70 Qf6+ Kg8 71 Qe6+ Kg7 72 Ba5+ Kh8 73 Qh1+ Ka7 74 Bf2+ Ka6 75 Qg8+! Qh7 76 Qc4+ Kh6 77 Ba5+ Ka7 78 Bd2+ Kb7 79 Qxh7+.

Despite its additional power, bishop still loses to rook and knight: 1 Rh3! Kg4 2 Rh2! Kg3 3 Rh1! Bg8 4 Nf5+! Kf4 5 Rh5! Bf7 6 Ra5 Bc2 7 Nd4 Be8 8 Kf2 Ke4 9 Ne6 Kd3 10 Ng5 Bc6 11 Rc5 Bh1 12 Kg3 Ke3 13 Rc3+ Kd4 14 Rc1 Be4 15 Kf4 Bd5 16 Rc7 Bh1 17 Rc2 Bb3 18 Nf3+ Kd5 19 Rc1 Bh5 20 Ng5 Kd4 21 Ne6+ Kd5 22 Nc7+ Kd4 23 Nb5+ Kd5 24 Ke3 Bb3 25 Nc7+ Ke5 26 Rc5+ Kf6 27 Rb5 Bf7 28 Kf4 Kg6 29 Rg5+ Kh6 30 Kg4 Ba2+ 31 Kh4 Bh1 32 Rf5 Kg6 33 Rf4 Bf7 34 Nb5 Bh1 35 Na3 Bb7 36 Nc4 Bd5 37 Nb6 Bb3 38 Rf2 Bh1 39 Nh5 Kh7 40 Rf6 Bg2 41 Kg5 Be4 42 Rh6+ Ka8 43 Nf6 Bd3 44 Rb6 Ka7 45 Nh5+ Kh7 46 Re6 Ka8 47 Re7 Kb8 48 Na7 Be4 49 Kh5 Bd3 50 Ka5 Ka8 51 Nc6 Bf1 52 Ne5 Be2 53 Kh6 Bf1 54 Nf7 Kb8 55 Nd6 Bg2 56 Ka6 Ka8 57 Nf7 Bh3 58 Kb6 Bf1 59 Rc7 Bg2 60 Ng5 Kh8 61 Na6+ Kg8 62 Rg7+ Kf8 63 Rxd2.

THE END IS NIGH!

by Paul Byway

The competition is double ration in this issue! But first, just a thought as to how you might represent a four dimensional endgame. Use an Alice-type diagram, but each piece must be shown on both boards. A 3-piece example is shown below with an asterisk marking co-incidence.



Solutions to Competition 23

#134 7 Ne4 d3 Bg5 Bxe7 Rcl Rxc7 Nxd6 mate

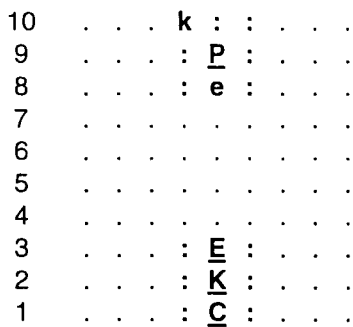
#135 7 Ne5 Nd7 Nb3 Nbc5 Bf4 Bxc7 Re1 mate

#136 9 Nc3 Nxe4 Nd6 Ke2 Kd3 Kc4 Kb5 Kxc6 Bg5 mate

The current scores:- FG 75, IR 69, DP 46, CL 24, PW 24, RT 19, JB 16, NE 2, SB 2. I seem not to have received solutions from some regulars this time - have I mislaid yours? If so you have my apologies. Let me know and I'll correct the scores.

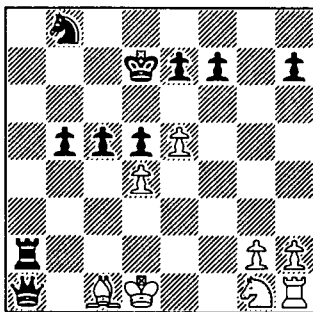
Competition 24 follows. In #137, from a 1984 booklet "Special topic: Cannon plus Pawn", cannon moves as rook, but can capture only if there is precisely one man between it and its target; other men are as on page 54.

#137 - Author unknown



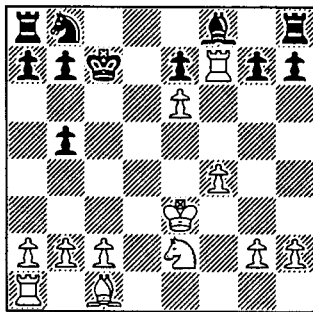
Red to play and win

#138 Mazza - Fontana (1987)



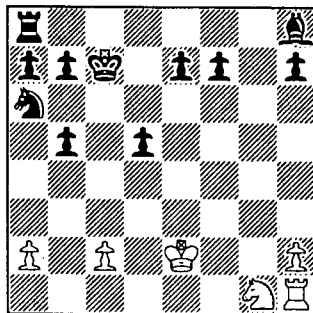
White wins (series 9)

#139 Rallo - Cassano (1988)



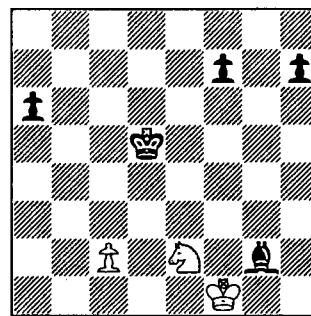
Black wins (series 8)

#140 Dipilato - Davide (1987)



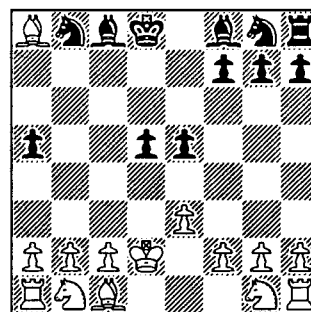
White wins (series 9)

#141 Dipilato - Castelli (1984)



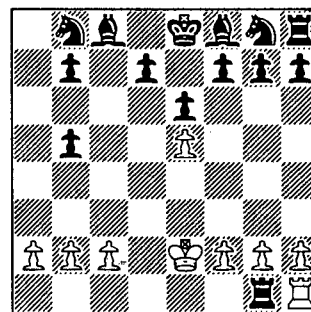
White wins (series 11)

#142 Lesnicenko-Gadzinskaya (1991)



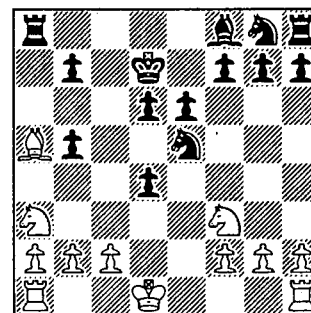
Black wins (series 6)

#143 Cesaro - Sala (1993)



White wins (series 7)

#144 Brusca - Mapelli (1986)



White wins (series 7)

SOLUTIONS

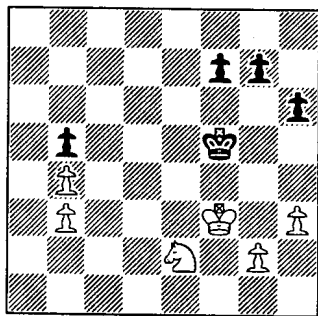
VC 47 Proof Games (page 42). 11 (PF): 1 Rg1 b5 2 RNf1 b4 3 RBNh1 b3 4 RNg1 bxa2 5 Rf1 axb1RBN 6 Ra4 RBNc3 7 Rb4 RBe3 8 bxc3 Bf4 9 dxe3 a5 10 exf4 axb4.

12 (Rösler): 1 e4 e5 2 Ke2 Qh4 3 Qe1 Qxe4+ 4 Kd1 Qh4 5 d4 Qd8.

13 (PF): 1 e3 b6 2 Ke2 Na6 3 Kd3 Nc5+ 4 Kc4 Bb7 5 Kb5 Bc6+ 6 Ka6 Rb8 7 Kxa7 d6 8 Kb7 Qc8+.

Progressive Chess (page 50). What if 6 Kxd8, f3, fxg2, gxf1Q+? White can mate in six (say **Kc2 Nc3 Nd5 Bd2 Rxf1 Rf8**), and there is a similar mate in seven if Black runs the h-pawn.

After 10 Ke6 etc: no mate was found, but **11 Ke3 Nf2 Nxe4 Nc3 Na4 Nxb6 Na4 Nc3 Ne2 Kf3 h3** left Black helpless and he resigned :



Remarkably, there was no promotion by either side after move 5.

Losing Chess (page 51), Hofmann study. Try say 1 Kg3: no, 1...Rc8 2 Kf4 (nothing better) b5 3 Ke5 b4 4 Kd6 (if White does nothing, Black will promote to R or B and win easily, so he goes for the rook) Rh8 5 Kd5 b3 6 Kd4 b2 7 Kc4 Rh7 with a winning promotion next move (8 Kb4 b1B, 8 Kd3 b1R).

Hence **1 Kg4! Rc8** (best) **2 Kf5 b5 3 Ke6** (threat 4 Kd7 drawing, for example 3...b4 4 Kd7 Re8 5 Kxe8 b3 6 Kd7 b2 7 Kc6) **Rc3** (for 3...Rc2/Rc1 see below) **4 Kd7!** (forcing the rook off the c-file) **Rh3** (4...Rf3 stops what is to follow, but 5 Ke6 Rc3 6 Kd7 repeats) **5 Kd6** (now White goes for the pawn) **b4 6 Kd5 b3 7 Ke4! Rh1 8 Kd3 b2 9 Kd2 Re1** (other moves lose) **10 Kxe1** and draws. If 3...Rc2

then **4 Kd7 Rh2 5 Kd6 b4 6-7 Kd4 b2 7 Ke3** and Black has nothing better than 7...Rf2 8 KxR drawing; if 3...Rc1 then **4 Kd7 Rh1 5-7 Kd4 b2 8 Kd3 Rf1** (8...b1R? 9 Kd2 and wins) **9 Kd2** as before.

XiangQi (page 54). **First diagram.** 1 Pg7-g8+ Kf8-f9 2 Pg8-g9+ Kf9-f10 (if 2...Kf8 then 3 Hg6 mate) 3 Hi7-h9 (not check, but...) Rh10-i10 (else the rook goes) 4 Hh9-g7 and Black is dead :

```

10 . . . : : k . . r
9 . . . : : : p . .
8 . . . : : : . . .
7 . . . . . H . .
    
```

K

Red threatens 5 Pf9 mate, and Black has no defence; he is not allowed to give perpetual check, and if he tries 5...Ri10-i9 he is mated by 6 Pg9-g10.

Second diagram. 1 Hg6-f8+ Ke10-e9 and Red would like to bring his other horse into play by 2 Hcd7+, but Black can reply 2...Kf9 and Red's attack is at an end. So Red must continue with 2 Hf8-d7+, and Black has a choice :

```

10 . . . g : g . . .
9 . . . : k : . . .
8 . . . : : : . . .
7 . . . H P . . .
6 . . . . . . . .
5 . . H . . . . .
    
```

K

Given is 2...Ke9-e10, leading to mate by 3 Hd7-c9+ Ke10-e9 4 Hc5-d7+ Ke9-d9 5 Hd7-b8+ Kd9-e9 (5...Kd8 6 Hb7 mate) 6 Pe7-e8 :

```

10 . . . g : g . . .
9 . . H : k : . . .
8 . H . : p : . . .
    
```

K

If instead 2...Kd9, we have the same moves in a different order, 3 Hb8+ Ke9 4 Hcd7+ Ke10 5 Hc9+ Ke9 6 Pe8, giving the same mating position though the horses have changed places.

Third diagram. 1 Hi7-h9 (1 Hxh5 Pf3 and it is Black who mates) **Kf10-e10** (1...Kf9 2 Hh8 mate) **2 Hh9xf8+** (Red cannot play 2 Hg9+ because Black's guard obstructs the route) **Ke10-f10 3 Hf8-h9+ Kf10-e10 4 Hf7-g9+** (but now he can) **Ke10-f10 5 Hg9-e8++** and mate next move.

Fourth diagram. 1 Pf6-f7+ Kf8-f9 2 Pf7-f8+ Kf9-f10 3 Hg9-e8 and Black is almost completely tied up :

```

10 . . . g h k . . .
9 . . . H r : . . .
8 . . . : H P . . .
7 . . . . . h . .
6 . . . . . . . .
5 . . . . . . . .
4 . . . . . . . .
3 . . . : : : . . .
2 . . . p : : . . .
1 . . . : : K . . .
    
```

None of his back four men can move (the rook is pinned by both horses), Red threatens 4 Pf9+ Hxf9 5 Hg7 and mate by 6 Hh9, and if 3...Hxe8 then 4 Pf9 is mate at once. Black's only hope is 3...Hg7-f5 blocking the Red king's guard of f9, and now 4 Hd9-e7 threatens mate by Hg8. If Black kills this by playing 4...Hxe7 then the f-file is open again and the mate by 5 Pf9 comes back (5...Hxf9 is impossible because e8 is blocked), and if he tries to guard g8 by playing 4...Hf5-g3+ 5 Kf1-f2 Hg3-e4+ 6 Kf2-f1 He4-f6 he finds that 7 He7-g8+ Hf6xg8 forces the file open again, and 8 Pf8-f9 is once more mate.

Winning Ways (page 57). A trip to k9 suffices for Norton's problem: **1 Rb5 Kd4 2 Rk5 Ke4 7 Kf6 Kj4 8 Rk9 Kj5 10-11 Kh8 Kj7 12 Ki9** and Black has been reined in. Moser's problem is a generalized opposition study: **1 Ko3 Ki2 2 Ko2 Ki1 3 Kn3** etc, or **2...Kh1/Kj1 3 Kn1**.

Pappus (VC 47 p 47). Paul Yearout, who like me was brought up in the days when mathematics lessons taught geometry and not jargon, points out that I misstated the result; it is of course the cross-joins (B'C", B"C') (C'A", C"A'), and (A'B", A"B') that are stated by the theorem to be collinear.

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This time's offerings are the results of anything from four months of hard analysis to a few moments of idle reflection, but I hope all will be found of interest. The Progressive game is one of the best I have seen, and I have suggested it to David Pritchard for consideration as an example in the new edition of the *Encyclopedia of Chess Variants*.

Proof Game Composing Competition (see VC 47 p 42). Peter Fayers asks me to remind readers that entries should reach him by **June 30**.

Scotch Kriegspiel (VC 47 p 37). Fred Galvin adds a rider: "...it seems to me now that Italian Progressive Kriegspiel would be an improvement. You could try to locate the enemy king by giving early checks which would be nixed by the referee." I personally dislike the Italian rule, but here may be a situation where it would show to advantage.

BCVS NOTICES

The **Annual General Meeting** will be held at **5 Biddulph Street, Leicester** at **Saturday 18 June** (business meeting in the morning starting at 1130, informal tournament in the afternoon). UK members will find a formal notice with this issue of VC, and members from abroad who are in the UK on the day will be welcome also (but please tell us in advance if you are likely to be coming).

George Jelliss has kindly offered to host the meeting this year, and we hope that the new location and the opportunity to browse in the Library will attract some members whom we do not normally see. The nominal business at these meetings may be as formal and routine as such things always are, but the afternoon sessions have in the past been most enjoyable; do come and show your faces.

Walnut Chess (VC 47 p 41). David Pritchard has commented pertinently: "The game is similar as regards moves with many of the uncounted war games of the 19th century (light/heavy/foot/mounted troops etc moving a limited number of spaces). Guns very common, combined attacks I think not uncommon, but camouflage and an hexagonal board much less so although common of course in many chess variants. Hexagonia (1864) had guns, cavalry and infantry on an hexagonal board. When I was researching the *ECV* I explored many (dozens, certainly) of these war games, mostly of Central European origin as I remember, but rejected them all as being too remote from chess."

CALENDAR

XiangQi. The 3rd "Jin Yang Cup" (UK individual championship 2005) will be held at the Pontefract Castle, 71 Wigmore Street, London (fairly close to Bond Street underground) on **Sunday May 22** (five rounds, scheduled playing time 1200-2030). See the web site <www.ukcca.org> for additional information. Entries (£10 fee) should reach C. K. Lai, 12 Haslam Street, London SE15 5GD, cklailai@aol.com, by May 18.

Bughouse. A reminder that there will be an international Bughouse gathering in Genève over the weekend of **August 19-22**. Contact Fabrice Liardet (nabla@pion.ch) for details.

Circular Chess. I still have no details of this year's Circular Chess World Championship beyond the bare date and place (Lincoln on **August 20**), but if interested readers would care to contact me I shall be delighted to pass on any information as soon as I receive it.

Notices for VC 49 should reach me by **June 15**, though notices received later will be fitted in if it is at all practicable.

Randomization. The "Fischerandom" or "Chess 960" variant (bishops on different colours, kings between the rooks) continues to attract sponsors, and Peter Fayers has drawn my attention to a World Championship match which was held in Mainz last year (see <www.chesstigers.de> for more). David Pritchard and I may be unimpressed both by this variant, as witness David's review in VC 44, but others are clearly prepared to put their money where our mouths are not.

Variant Chess is the journal of the **British Chess Variants Society**

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