

THE INVISIBLE CHESSBOARD

A brief, terse, "position" is a display of pieces on the two boards, describing one objective chess position and two subjective reconstructions. To the player, the position of the game is not less and more than what a kibitzer sees. Like a chess player, the playing field is not of sight, because the player carries in his head a reconstruction of his past, as well as announcements, inferences and impressions of a relevant record that is far richer, though less precise, than anything he could display on the board for the kibitzers' edification. Just as poker is essentially a game of memory-management, not card play, so is kriegsspiel as heard a game of information-handling, not piece-manipulation. Unlike the chess player, who foresees plans ahead, the kriegsspieler spends most of his thinking time in the reconstruction of past events.

It perhaps follows that the best kriegsspiel problems ought pay as much attention to backward analysis as to forward play, somehow putting the solver into a state of partial information, say in the form of a mass of clues and signals to be sorted out, or even by providing a complete synopsis of "how one thus far" from one player's point of view, as in our first offering.

This ancient but elegant puzzle is due to Lester Ford, one of Reed's early super-stars (and not only at the kriegsspiel table). It evades the dubious distinction of duplication in the RANDOLPH NEWS, a short-lived and long forgotten house organ. Strictly speaking, the diagram on the next page is unnecessary, since the entire game (from Black's point of view) is spelled out in the accompanying protocol. Black's moves are abbreviated rather fully, and when you've solved the problem you'll see that White's moves are even briefer. But these proper settings have a long tradition of incompleteness, to which kriegsspiel surely adds a new dimension.

As for the problem itself, there's sophisticated kriegsspiel will soon unravel the "mystery of seven nine" and expose White's fatal indiscretion. It's then child's play to find the two-move key of Black. (Adults may turn to the Answers Section.)

It is this why chess skills are of limited value in playing kriegsspiel, while the ability to keep track of one's own position is absolutely vital.

L. Shapley
June, 1987

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THE INVISIBLE CHESSBOARD

1. IN THE YEAR OF OUR FORD

A kriegsspiel "position" is not just a display of pieces on the two boards, describing one objective chess position and two subjective reconstructions. To the player, the position of the game is both less and more than what a kibitzer sees. Less... because half the playing field is out of sight; more... because the player carries in his head a remembrance of moves past, as well as announcements, inferences and impressions -- a relevant record that is far richer, though less precise, than anything he could display on the board for the kibitzers' edification. Just as poker is essentially a game of money-management, not card-play, so is kriegsspiel at heart a game of information-handling, not piece-manipulation. Unlike the chess player, who forever plans ahead, the kriegsspieler spends most of his thinking time to the reconstruction of past events.*

It perhaps follows that the best kriegsspiel problems ought pay as much attention to backward analysis as to forward play, somehow putting the solver into a state of partial information, say in the form of a mass of clues and signals to be sorted out, or even by providing a complete synopsis of "the game thus far" from one player's point of view, as in our first offering.

This ancient but elegant puzzle is due to Lester Ford, one of Rand's early superstars (and not only at the kriegsspiel table!). It enjoys the dubious distinction of publication in the RANDOM NEWS, a short-lived and long-forgotten house organ. Strictly speaking, the diagram on the next page is unnecessary, since the entire game (from Black's point of view) is spelled out in the accompanying protocol. Black's moves are admittedly rather silly, and when you've solved the problem you'll see that White's moves are even sillier. But chess problem settings have a long tradition of implausibility, to which kriegsspiel merely adds a new dimension.

As for the problem itself, today's sophisticated kriegsspieler will soon unravel the "mystery of move nine" and expose White's fatal indiscretion.** It is then child's play to find the two-move coup de grace. (Adults may turn to the Answers section.)

.....
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** Needless to say, his fate is richly deserved in this instance. But as the traditional "good guy" of chess problems, White will fare better in the sequel.

2. WHO? WHAT? WHEN? WHERE? HOW?

The only legitimate sources of information in Kriegsspiel are the official announcements. But the practical player takes advantage of many other cues and clues. He takes note of the referee's choice of words and all the little slips and pauses. He monitors the chatter of the kibitzers, witty and otherwise, and senses the hush that falls over the room when some great opportunity or disaster is near. He observes the tell-tale pattern of his opponent's "no" sequence, and tries to decode the swish and thump of pieces as they are being moved about on the opposite side of the screen.*

Unfortunately, the antiseptic setting of a written problem gives little opportunity to present such "soft" bits of information, from which the live game derives so much of its flavor.** In the next problem, we'll try to "soften up" the reader with a barrage of the hard stuff: surprise moves, fancy checks, and pawn tries that mysteriously appear and disappear. Perhaps these will induce a haze of happy befuddlement, not unlike the mental fog that often enwraps a real-time player overloaded with ambiguities in one of those quickie lunch-hour games. The difference is that now you have all the time you want to figure it out!

Rather than start at the beginning, as in No. 1, we pick up the action just six moves before the jumping-off point, making the somewhat unreal assumption that White, at that time, knew nothing of Black's position except for the piece-count and the pawn-files. Never fear! The next six, fun-packed moves produce a wealth of intricately interlocking pieces of information --- enough, indeed, for an excellent reconstruction when the jig-saw is finally put together.

One comment: The reader may wonder what significance could possibly attach to the "no" on Black's 6th. Surely White can win just as quickly without hearing that "no" ... or can he?

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* Before the high screen was introduced, Ray Fulkerson was the acknowledged master at reading eye, neck and shoulder movements across the screen. Les Ford, for his part, was the master at faking them.

** But see Problem 11, where the referee makes one tiny little mistake, alas!

PROBLEM NO. 2. WHAT'S GOING ON HERE?

THE PRESENT POSITION

Black (5)

XX

-	+	-	+	-	+	-	+
+	-	+	-	+	-	+	#
-	+	-	+	-	+	-	R
+	-	+	-	P	-	+	-
-	+	-	+	-	+	-	Q
+	-	+	K	+	-	+	-
-	+	-	+	-	R	-	+
+	-	+	-	+	-	+	-

XX

WHITE (5) mates in 4.

Scene of the captures on move 6.

SIX MOVES EARLIER

Black (7*)

XX

-	+	-	+	-	+	-	+
+	-	+	-	+	-	+	-
-	+	-	+	-	+	-	R
+	-	+	-	+	-	P	-
-	+	-	+	-	+	N	Q
+	-	+	-	K	-	+	-
-	+	-	P	-	R	-	+
+	-	+	-	+	-	+	-

XX

WHITE (7)

* Black has two pawns, known to be on the Q and KB files respectively.

INTERVENING MOVES AND ANNOUNCEMENTS

White	Black
1. P-Q3	... ch file
2. P-K4 piece K5	... ch knight
3. K-Q3	... tries KB5, KB6
4. P-K5 try KN5	... piece KN4; ch long
5. P-N6 ch short	... tries KB6, KR7
6. P-R7 piece KR2	... no
7. ?? (mate in 4)	... pawn KR7

3. THE VOICES OF SILENCE

No news is big news in No. 3. The silence that follows White's 14th is absolutely deafening. In fact, the referee's inability to say "no" eventually gives the whole show away.

The setting is unusually realistic for a composed problem. White's opening is irreproachably "safe and sane", and even Black's eccentric plan of development is hardly any quirkier than many this author has witnessed in actual play.*

The purist may complain that the key-move is not unique. Yet the two solutions are such Siamese twins that it cannot fairly be said that the problem is "cooked".**

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* The author and Ray Fulkerson once thought to stage this game before an unsuspecting lunchtime audience, keeping even the referee in the dark. Alas, we never agreed who would play White!

** Cook (kook) vt.: To spoil (a problem) by finding two or more key moves. Webster's New International Dictionary, 2nd ed.

4. JUST HORSING AROUND

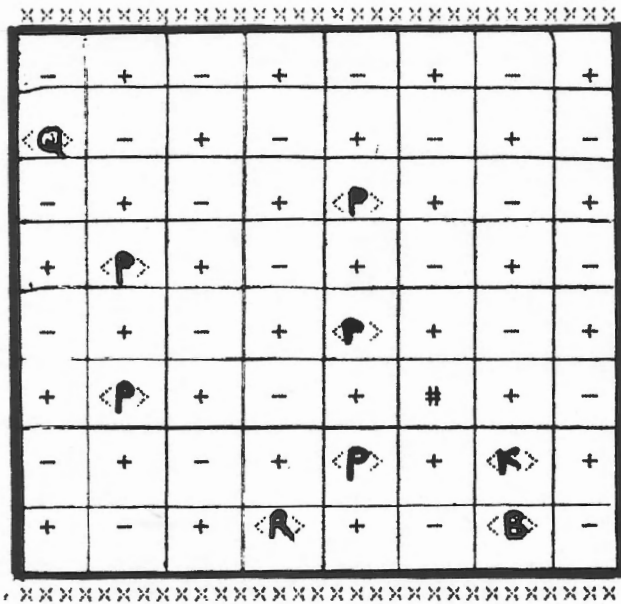
No. 4 makes no pretense of realism. But there is a pleasing pattern in the prescribed moves and a nice echo in the solution.

One feature of this problem may disturb the solver at first. It seems that no clue whatever hints at the location of the Black King. Why, it might be just about anywhere!

PROBLEM NO. 4. JUST HORISING AROUND

THE PRESENT POSITION

Black (6)

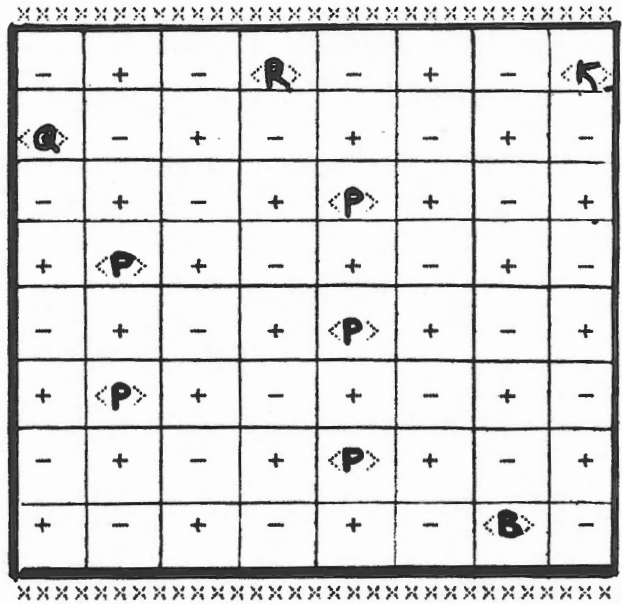


WHITE <9> mates in 2.

Site of White's try.

9 MOVES EARLIER

Black (6*)



WHITE <9>

* NOTE: All 8 Black pawns have been captured.

INTERVENING MOVES AND ANNOUNCEMENTS

	White		Black
1.	R-Q1	"Black"	... "ch knight & long"
2.	K-R7	"	... "ch knight"
3.	K-R6	"	... "ch knight"
4.	K-R5	"	... "ch knight"
5.	K-R4	"	... "ch knight"
6.	K-R3	"	... "ch knight"
7.	K-R2	"	... "ch knight"
8.	K-R1	"	... "ch knight"
9.	K-R2	"no"	
	K-N2	"Black"	... "try KB3"
10.	?? (mate in 2)		

5. TEN TEMPTING TRIES

Here's another example of a single move releasing a flood of information. This time, however, the voice is far from silent. TEN (count 'em!) brand-new pawn tries appear out of the blue. White, naturally, resists all ten temptations and gallantly "pushes past" to victory.

Here's the sound track:

"White to move."

"Black to move."

"White has tries on QR3, QN6, QB3, Q4, Q5, KB3, KB4 and KR3, not to mention the double try on QN5."

"Mate!"

This is of course just a stunt, not a real problem. But before turning the page, you might enjoy trying to figure out the position that permits this sequence of announcements.*

Is ten the maximum for a legal game? We think so.

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* Hint: Put White's king at his Q2 and Black's king at his KR4. Then give White a rook and bishop in addition to the necessary pawns.

PROBLEM NO. 6. RAY'S SEND-OFF.

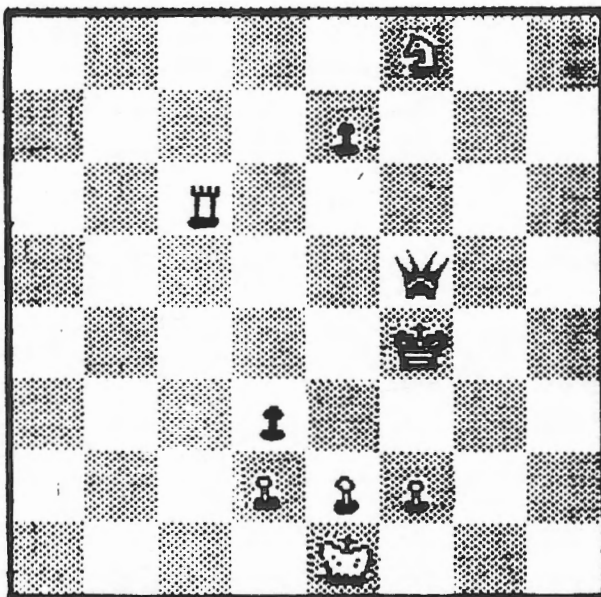
For a change, here's a problem where the players start from a known position. This is also the first problem in which probabilities enter the picture -- and in a relatively sophisticated way. The "value of the game" is a win for White, but White has no strategy, pure or mixed, that achieves it, even in expected value.

The situation responsible for this phenomenon is one that can arise rather easily in king-and-pawn endings in regular kriegsspiel. But in this problem it is hardly more than an afterthought to the tactical maneuvering that is the main point of interest.

This problem was composed* as a parting gift to Ray Fulker-son on his departure from Rand for Cornell. It was physically engraved on an aluminum kriegsspiel screen/tray, the rest of whose surfaces were covered with his friends' signatures interspersed with pithy kriegsspiel sayings: "When in doubt, push past", "A cheap tactical maneuver!", "The canonical try", "Troop B!", "Mark your ambiguities", "Hell no!" and the like.

THE STARTING POSITION

Black (4)



WHITE (6) wins with probability
arbitrarily close to 1.

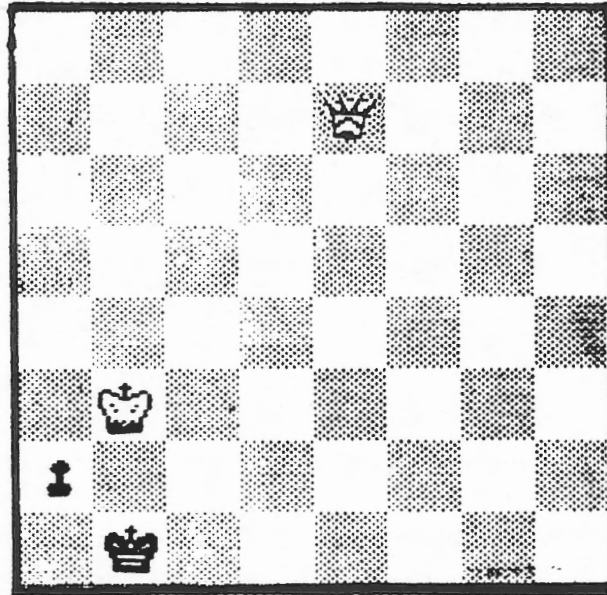
Iss# 5/68

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* More precisely, it was adapted from a published chess problem whose author was not recorded. Does anyone recognize it?

PROBLEM NO. 7. AN ENDGAME STUDY.

THE PRESENT POSITION

Black (2)



WHITE (2) to win.

White, knowing the exact position, has brought his king to QN3 and Black has just made his move. If the referee says "White" or "Black promotes", then there is an obvious mate at K1. So we assume that the announcement is

"Black promotes, check knight."

Now White must take care not to allow Black's king to escape the corner while the knight roams free, for in that case Black would have at least a small chance of picking off the queen. In fact, White has a strategy that wins in five moves or less, wherein he either checkmates the king or captures the unprotected knight without danger of stalemate. Can you find it?

PROBLEM NO. 8. THE WIDE OPEN SPACES.

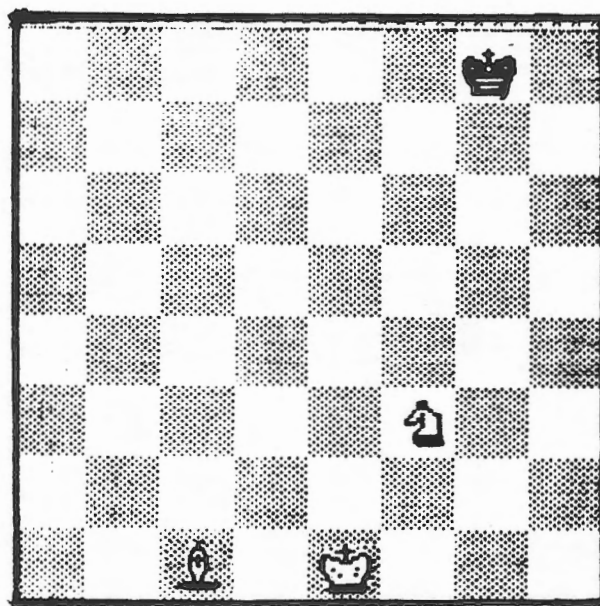
For initial shock value this end-game is unequalled. In fact, most people, seeing the problem for the first time, are doubly astonished. How can a bishop and knight in such an open position possibly force a Kriegsspiel win -- in any number of moves? And even granting the premise of the problem, how can any human solver produce an exact strategic plan 22 moves deep? The mind boggles.

Actually, things are not all that bad. Some frantic fence-building by White at the outset reduces Black's running room, and it only remains for the solver to discover the little finesses required to break down Black's defensive perimeter. The actual kill, once the K has been driven into the corner, takes only four or five moves.

While the sharpest line of play does take just 22 moves, anything under 30 means that you have essentially mastered the problem. Remember that you will need several moves after the K is cornered (see above), so don't waste time looking at variations that let Black run into the center.

THE PRESENT POSITION

Black (1)



WHITE <3> mates in 22.

9. "Voices of Silence" II

In No. 3, the "silence" is broken at the very end — when White tries to castle and gets a "no". It seemed that this was inevitable

in a composition based on the "silence" theme. To give Black a free move at that critical point -- with all his men still on the board and in some state of development -- would unravel White's reconstruction and make a forced mate in a reasonable number of moves unattainable.

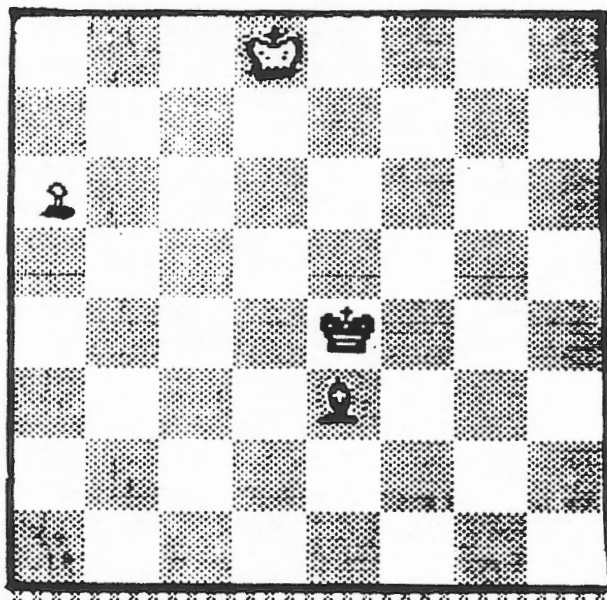
Some time later, however, a way was found to get rid of this thematic impurity. The idea was to get Black into such a tangled position that his final move, though silent, would not be "free". No. 9 is a realization of that idea. Indeed, the solver will eventually discover that Black's 14th move is uniquely determined, since all his other moves would trigger announcements.

The present setting is quieter than No. 3 in other respects as well. For one thing, there is no sudden burst of information at the end. White's dramatic 5th move creates a little flurry, but any information gained is given plenty of time to disperse, and the remaining nine moves apparently tell us nothing new. The solution itself is also subdued. The key-move is unforcing and uninformative, and it turns out that White need pay no attention to the referee's voice as the winning strategy unfolds, except to listen for a possible "hell, no!"

PROBLEM NO. 10. HIT THE MOVING TARGET

THE PRESENT POSITION

Black (2)



WHITE (2) wins with p > 1/2

Both players are assumed to have exact information at the start, and it is White's move. Black can draw by picking off the pawn at his QR2, or by sacrificing the bishop on that square when his king is ready to move into QB2. On the other hand, if the pawn is allowed to promote, the queen will win easily against the bishop.

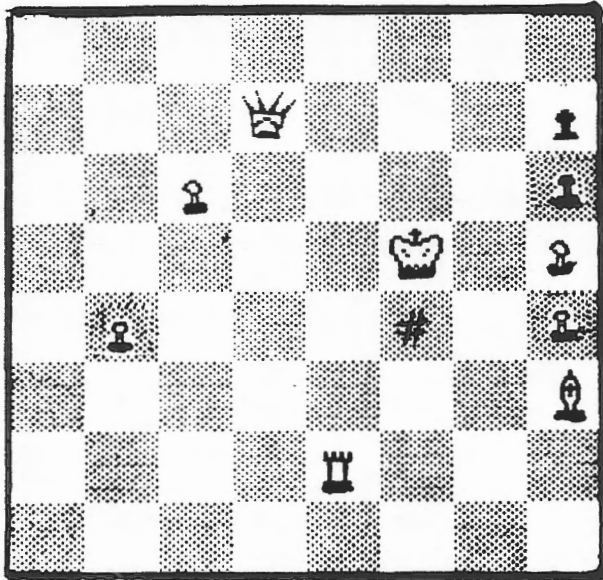
The situation clearly calls for mixed strategies.

T. E. Ferguson, 7/76

PROBLEM NO. 11. OOPS!

THE PRESENT POSITION

Black (8)

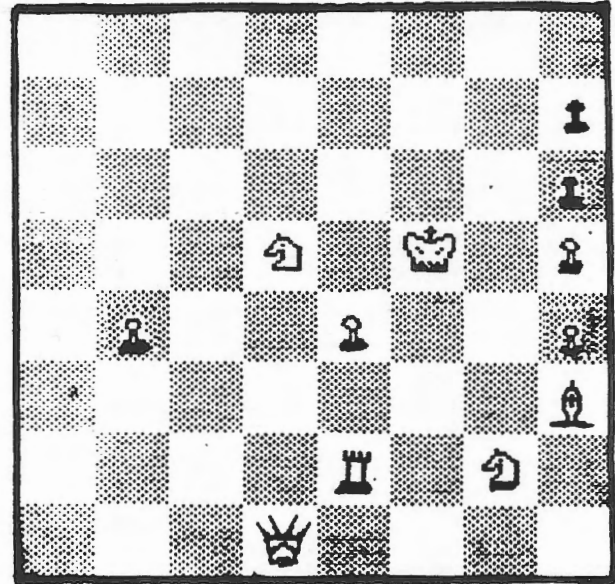


WHITE (8) mate in 6

Site of Black's latest capture.

THE POSITION 4 MOVES AGO

Black (10*)



WHITE (10)

* Black is known to have 6 pieces and 4 pawns.

MOVES AND ANNOUNCEMENTS

White		Black
1. N(N2)-B4	"try q4"	... "piece Q5, try"
2. PxQ5	"piece q4, try"	... "try, QB6"
3. PxB6	"pawn qb3"	... "no"
		... "White"
4. K-B6	"no"	
Q-Q7	"try kb5" --	

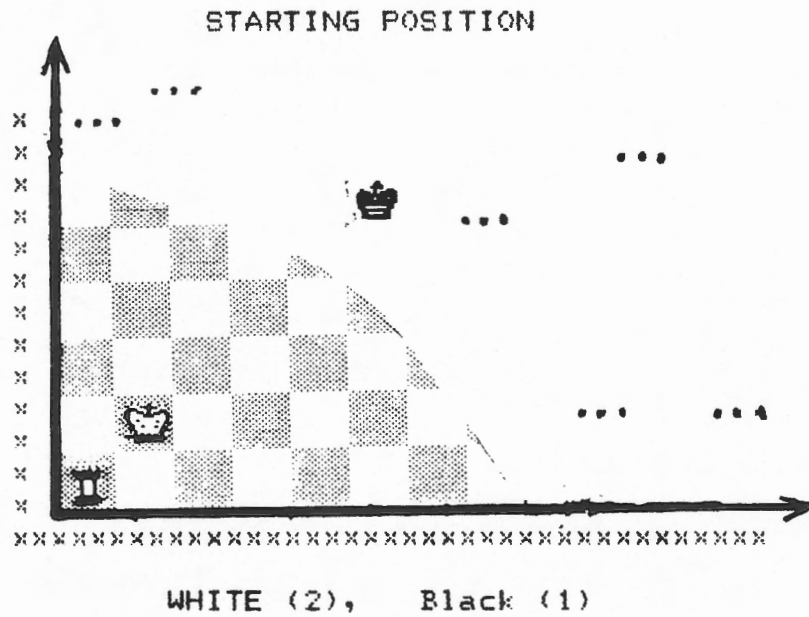
But at this point, amid murmurs of discontent, Ref reconsiders and admits that his "no" at move 3 was in error. The position is accordingly retracted, Black is told to try the move again, and play resumes with the corrected announcement --

3.		... -- "White"
4. Q-Q7	"try kb5"	... "piece KB4"

White starts to object, but is solemnly assured that apart from the false "no" there have been no mistakes. After pondering this for a while, White announces the mate in 6.

PROBLEM NO. 12. THE INFINITE POWER OF THE ROOK.

1. The board is a quarter plane.
2. White's king and rook start as shown below.
3. Black places his king on any legal square, unknown to White.
4. White then plays to win with probability 1.



KRIEGSSPIEL RULES

Standard chess rules apply, with the following additions and elucidations . . .

1. Personnel -- two players, referee, kibitzers.
 2. Each player has a complete chess set (board, black and white men).
 3. A player may freely rearrange the men of opposite color on his board -- these men have no official role in the game. The players may not see each other's boards and men.
 4. The referee monitors the game, and is required to announce the following . . .
 - 4.1 Whose turn it is to move (called here the mover).
 - 4.2 The square(s) on which the mover's pawns have currently valid options to make captures (called "tries"), thus, "White has a pawn try on king five," "Black has a double try on queen's knight three," etc.
 - 4.3 Each rebuff ("no") experienced by the mover in attempting to move.
 - 4.4 The fact that a capture has taken place, the category of the captured man according to the pawn/piece dichotomy, and its location. Thus, "Black has lost a piece on his queen one."
 - 4.5 Checks, which are announced by whichever of the following is (are) correct . . .
 - 4.5.1 Check on the long diagonal.
 - 4.5.2 Check on the short diagonal.
 - 4.5.3 Check on the rank (or "horizontal").
 - 4.5.4 Check on the file (or "vertical").
 - 4.5.5 Check by a knight.
- (The diagonals considered are the pair which intersect at the king. Check by a pawn is announced as if it were a bishop or queen, i. e. without revealing that it is a pawn.)
- 4.6 Pawn promotions, but not where they occurred nor what piece was chosen.
 - 4.7 Checkmate and stalemate.
5. The referee does not review announcements more than one move old, and does not recapitulate losses.
6. The referee does not rebuff in the usual manner attempts which are illegal per se, such as moving to or through a square occupied by one's own man, failing to remove a captured piece from the board, moving a rook diagonally, responding to a check by other than a king move or interposition or capture compatible with the announced character of the check, etc. The special rebuff "hell, no!" is used here.

7. Errors -- It is the referee's function to communicate effectively with the players. For example, if a player mis-identifies the square named in an announcement the referee will correct him, taking care not to disclose any significant information while doing so.

Referee blunders range from trivial to catastrophic. The remedies include general reprimand, reverse play, and declaring the game void.

8. A player may, before moving, demand a count of the rebuffs ("no's") sustained by his opponent on the previous move. In fact, he may demand such information during the opponent's turn.

9. A player may attempt any move which is compatible with his own situation (men and deployment) and with the referee's current announcement. (In interpreting the word "compatible", the player is not presumed to remember previous plays or to make logical inferences.)

10. A move is completed when a piece touches the board or a presumed enemy piece on a legally admissible square.

11. En passant options and captures are announced in the same manner as other options and captures are announced. The fact that they are en passant is not specified.

12. When a check exists, only those pawn options ("tries") are announced which if taken will eliminate the check.

13. Notation -- The designations used for squares are from the point of view of the mover. Thus if White captures on his K8, the event is announced on Black's K1. For easier identification, some referees use the terms near and far to distinguish the king- and queen-sides (according to the seat of the referee), thus, "Black piece gone on far bishop one," "White try on near middle five," etc.)

14. Kibitzers -- The game is a spectator sport par excellence, and everything is done to keep it so. The kibitzers have the right to criticize the play, the players and the referee. However, the ethics of the situation require that the kibitzers never intentionally give useful information to the players. Probably the game breaks down as the number of kibitzers increases indefinitely -- even with half a dozen, a pinned pawn has but small chance of not being found out in a false try situation.

15. It is considered ethical for a player to capitalize on blunders and all unsolicited information received from referee and kibitzers -- indeed, he may attempt to solicit "information" from his opponent or otherwise heckle him.

16. Draws -- A player may offer a draw immediately after making any move that is not rebuffed. The offer must be accepted or rejected before the next move is attempted. A player may not claim a draw unilaterally on the presumption of a twice-repeated position, a "perpetual check," an absence of mating strength or a failure to make timely progress in the end game. But the referee, on his own initiative and discretion, may declare a game drawn for any of these reasons except "twice-repeated position." (A "position" in kriegsspiel is deemed to include all the information gathered by the players from the beginning, and hence is never repeated.)