RETRO WORLD IV: The Pre-existence of Being

number 84   February 27, 2015

Retrograde analysis is a form of logical reasoning in which past events are deduced from details in the present situation.

This column features six *last move problems*. The task is to determine the move or moves which led to the given position.

Before beginning our investigations, here are a few notes from *The Chess Detective's Handbook*, the classic work by resident Cafe sleuth Harmonius Hound.

When answering the question "What was the last move?", be as precise as possible. A complete description of a move includes the square a piece moved from, whether a capture was made, and if so, what type of piece was taken.

Moves are counted separately for White and Black. "Last two moves" means one turn by each side (W-B or B-W).

Assume that the puzzle positions are legal, even if the piece placement is strange. A chess position is legal if it could be reached in a game played with normal rules. Strategic content is optional.

Keep your nose to the ground and your tail out of harm's way.

Our first problem is by Croatian composer Sveto Stambuk. The stipulation is to determine the last move played. However, it is possible to figure out the preceding move as well, although it is partially ambiguous with regard to the departure square or capturing. Given that provision, "What were the last two moves?"
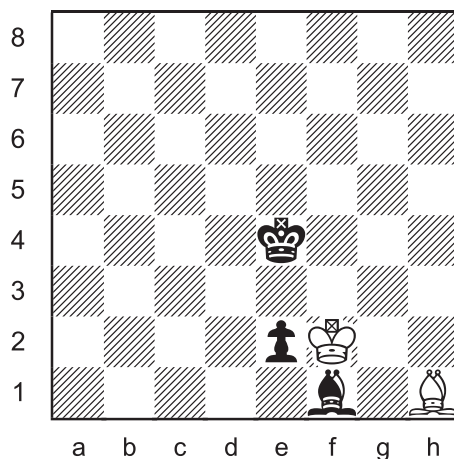
Retro 28
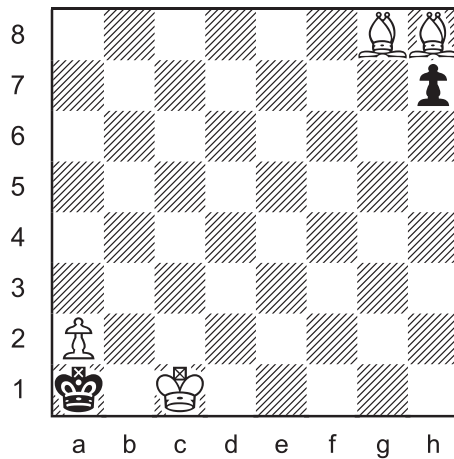
What was the last move?

The next "retro" is also by Sveto Stambuk, whose 83rd birthday was earlier this week. Best wishes, sir.
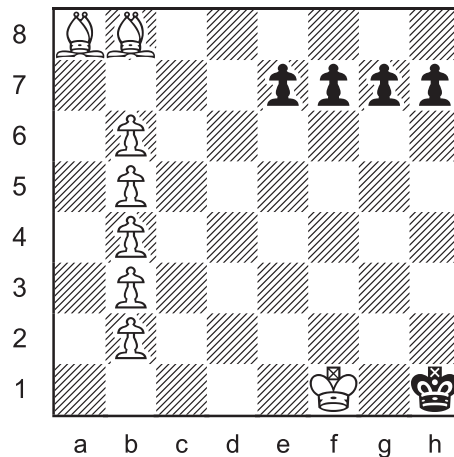
Retro 29

What were the last two moves?

So much for the "easy" puzzles. Let's raise the level of difficulty a notch or two.
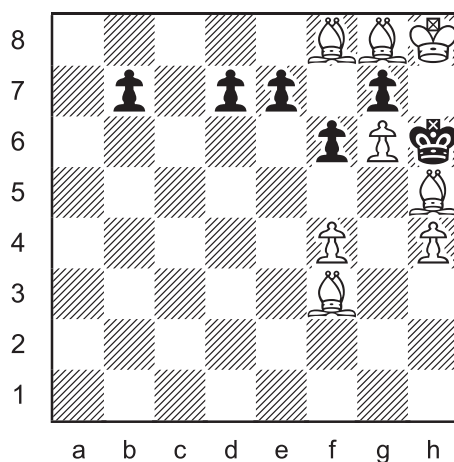
Retro 30

What were the last three moves?

The following madhouse of bishops, by German composer Hans Theo Kuner, asks for the last single move. As in *retro 28*, the second-to-last move can also be partially deduced. Unlike the earlier positions, neither king is in check. Figuring out which side just moved is part of the puzzle.
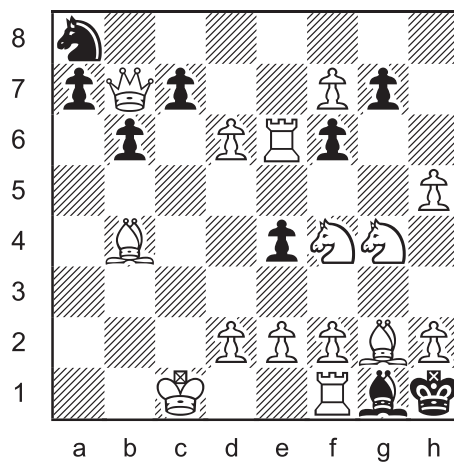
Retro 31

What was the last move?

If you didn't find that problem challenging, then you are obviously an experienced professional. But even ace detectives will be rubbing their chins when faced with the next mystery, a retro masterpiece by Leonid Borodatov of the Ukraine.
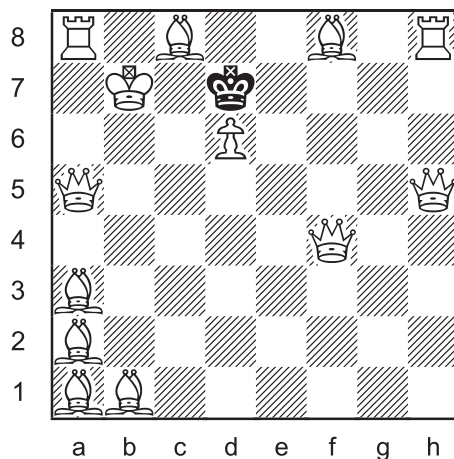
Retro 32

What were the last nine moves?

Have you had your fill of crazy bishops yet? Hopefully not. Our final puzzle is too good to pass up. Croatian composer Nenad Petrovic (1907-1989) takes us eleven steps into the past.

Retro 33


What were the last eleven moves?

SOLUTIONS

Solutions are written in long algebraic notation, giving departure and destination squares. If there is a capture, the type of piece taken is indicated in parentheses.

For more information about retrograde analysis, see *Chess Mysteries in a Retro World* (column 30) in the archives.
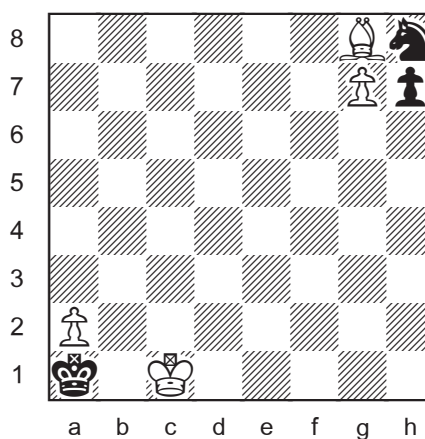
PDF hyperlinks. You can advance to the solution of any puzzle by clicking on the underlined title above the diagram. To return to the puzzle, click on the title above the solution diagram.

Retro 28
Sveto Stambuk 1951
problem
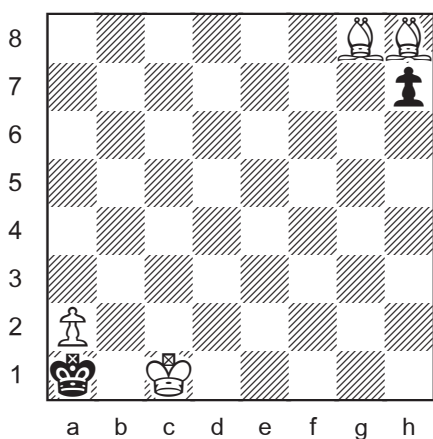

Last move: 1.g7xh8(N)=B#   Position before last move

The check from the bishop at h8 could only happen with a pawn promotion (and capture) on h8. The piece captured must be a knight, otherwise Black would have no legal move on the preceding turn.
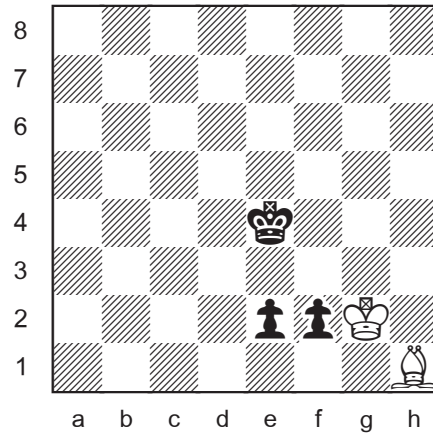
It's obvious that the preceding move was not by the black king or pawn. The only kind of black piece that could have moved to h8 (and been captured) is a knight. So the move before 1.g7xh8=B# had to be **...N>h8**. The knight could have come from f7 or g6, and it may or may not have captured a white piece on h8.

Retro 29

Sveto Stambuk 1951

problem
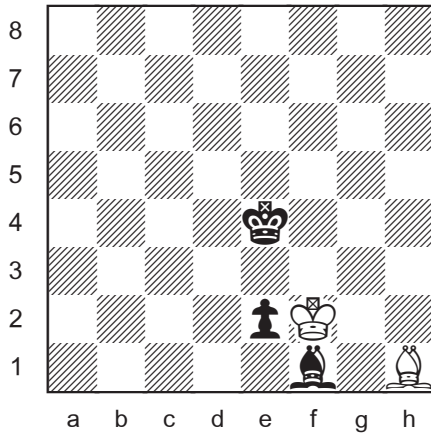
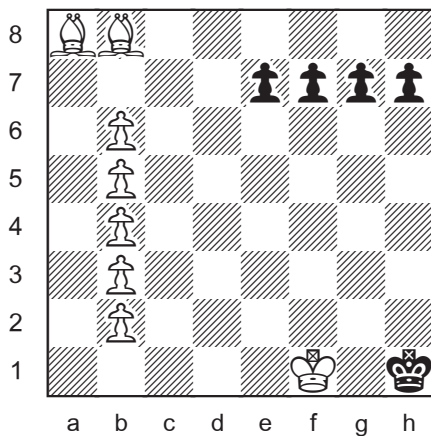Last two moves:

1...f2-f1=B+ 2.Kg2-f2+
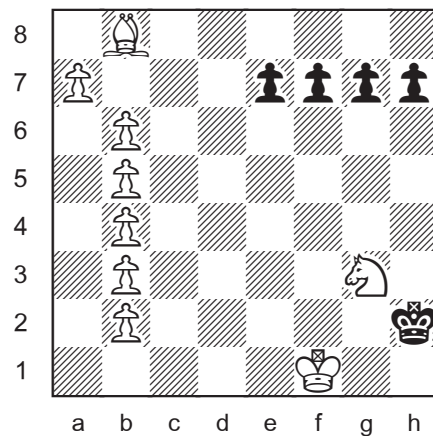

Position two moves ago

The only way to explain the check from the bishop on h1 is a discovered check by the white king from g2 to f2. The only way the white king could be in check on g2 from the black bishop at f1 is by a pawn promotion.

Retro 30

J. Coakley 2010

Winning Chess Puzzles For Kids Volume 2

Last three moves:

1.Ng3-h1+ Kh2xh1(N)
2.a7-a8=B#

Position three moves ago

Black is in check from the bishop at a8. White did not move their bishop there last turn because the bishop would already be checking the black king from any square it could have moved from. *It cannot be White's turn if Black is in check.*

There are three possibilities for the check, all involving an underpromotion: a7-a8=B#, b7xa8=B#, and b7-b8=B#.

To determine which move was played, it is necessary to figure out how many captures were needed to create the white pawn formation.

If the last move was a promotion with a pawn from b7, then there were six white pawns on the b-file beforehand. That formation (sextupled b-pawns) would require eleven captures.

Black is missing eleven pieces, but we can tell from the pawns at e7 and g7 that the dark-square bishop never moved and was taken on f8. Which only leaves ten black pieces available for capture elsewhere. Therefore the last pawn move was not from b7. It had to be **2.a7-a8=B#**.
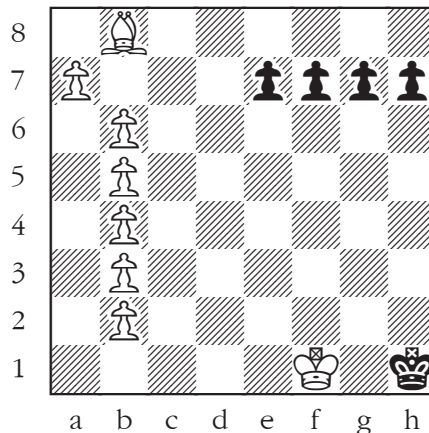
Black's previous move (in this diagram) had to be with the king from h2, where he would be in check from the bishop at b8. We already know, because of the number of captures required, that White did not promote on b8. A move by the bishop to b8 was also impossible last turn (with a pawn on a7).
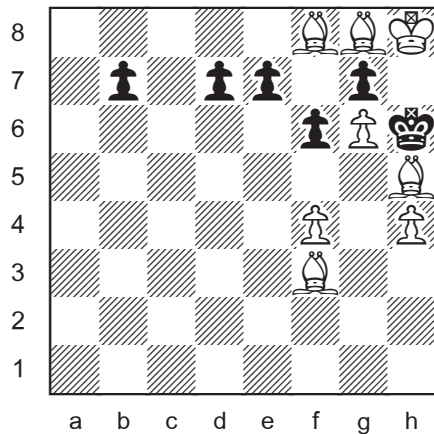
So the only explanation of the check is a discovery by a white piece that was then captured on h1. A knight, of course.

The white knight did not capture on h1 because all missing black pieces, except the dark-square bishop, were taken by white pawns.
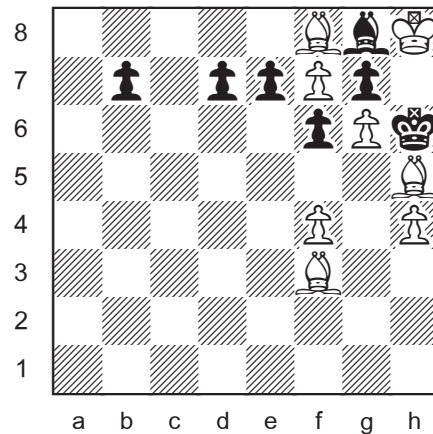
Retro 31
Hans Theo Kuner 1960
Die Schwalbe

Last move: 1.f7xg8(B)=B

Position before last move

The black piece captured on g8 must be a bishop, otherwise Black would not have a legal move on the previous turn.

The preceding move by Black was **...Bh7>g8** which may or may not have been a capture.

Analysis

The first task is to determine which side just played.

a) The last move was not made by the black king because he would be in an impossible double check on g5 or h7.

b) The last move was not by the black f-pawn because of the white bishop on f8, which must be a promoted pawn on account of the unmoved pawns at e7 and g7. Black had to play ...f6 earlier to allow a white pawn to promote on f8.

c) Therefore the last move was made by White. It must be a move that gives Black a legal move on the preceding turn.

d) The next thing to investigate is the number of captures that were required by White to promote three pawns into bishops. Besides the dark-square B on f8, White also has two extra light-square Bs.

e) From the unmoved pawns on b7 and d7, we know that the light-square bishops were promoted on e8 or g8.

f) White has pawns on the f-, g-, and h-files. **Eight** captures were necessary (by three pawns from the c-, d-, and e-files) to promote once on f8 and twice on a light square (e8 or g8). For example, exf7-f8, dxe6xf7xe8, and cxd5xe6xf7xg8.

g) Black is missing ten pieces, but both bishops were captured on their original squares (as seen from the unmoved pawns on b7, d7, e7, g7). Which leaves **eight** black pieces available for capture elsewhere.

h) Therefore, except for the bishops taken on c8 and f8, the only captures made by White were with the pawns that promoted.

Now consider the possible moves by White on the last turn.

i) The last move was not by the king or the bishop on f8.

j) The last move was not by the pawn on f4 because f3 is occupied and it could not have captured from e3 or g3 since there are no missing black pieces available for capture.

k) The last move was not by the pawn on g6 because it would be checking the black king from g5 and it could not have captured from f5.

l) The last move was not by the pawn on h4 (from h2 or h3) because Black would not have a legal move on the preceding turn. On g5, the black king would be in an impossible check from the pawn at f4 (which could not have captured from e3 or g3).

m) The last move was not by the bishop on f3 because Black would not have a legal move on the preceding turn. The bishop did not capture a black piece that just moved to f3 because there are no missing black pieces available to take.

n) The last move was not by the bishop on h5 from g4 because Black would not have a legal move on the preceding turn. On h5, the black king would be in an impossible check from the bishop at g4. The bishop did not capture on g4 and it did not move from h3, f5, or e6 because the black king would already be in check from the bishop on f3.

o) The only piece left that could have moved last turn is the bishop on g8.

p) In order for Black to have a legal move on the preceding turn, White must have captured a piece that just moved to g8.

q) Since all missing black pieces (except the bishops at c8 and f8) were taken by white pawns that promoted, the last move had to be the pawn capture f7xg8=B.

r) With a white pawn on f7, the only black piece that could have moved to g8 on the preceding turn was a bishop from h7. A queen on h7 would be checking the white king.

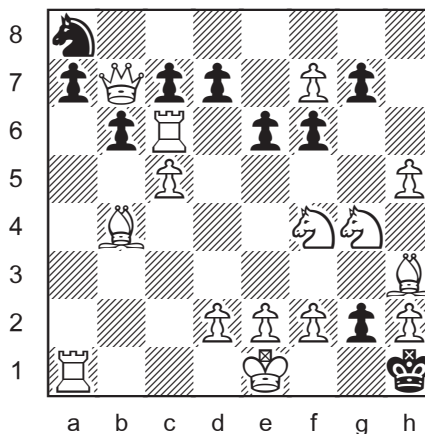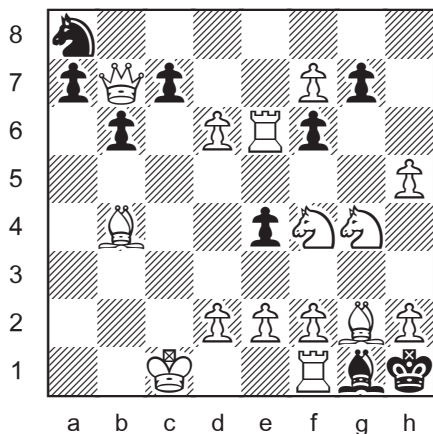s) Therefore, the last move was 1.f7xg8(B)=B.
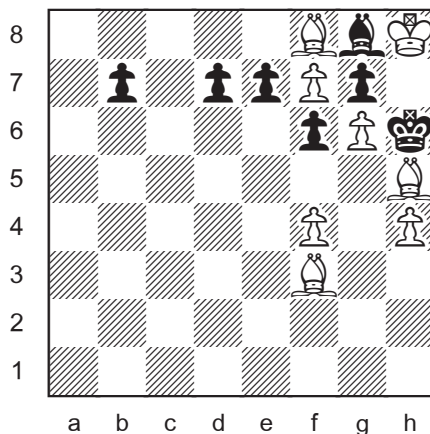
Strangely enough, in this position before the last move, the black bishop on g8 is also a promoted pawn.

Retro 32
Leonid Borodatov 1991
Die Schwalbe

Last nine moves:

1.0-0-0+   g2-g1=B
2.Rd1-f1   e6-e5
3.Rc6-e6+ d7-d5
4.c5xd6 e.p.+ e5-e4
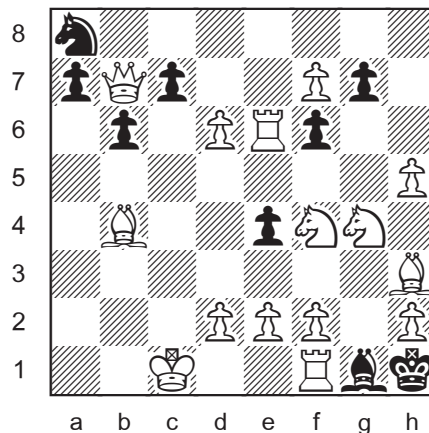5.Bh3-g2#

Last nine moves: Position nine moves ago

A "retro rewind" leads back to the position on the right.

The *Valladao* theme! A designation that is given to any chess problem which includes castling, pawn promotion, and an *en passant* capture, named after Brazilian composer Joaquim Valladão Monteiro (1907-1993).

Analysis

a) Black is in check, so the last move had to be with the bishop on g2.

b) Surprisingly, the key to solving this case is the missing white a-pawn. Its fate will show that the white bishop did not capture on g2.

c) White is only missing one piece, which was captured by the black h-pawn that later promoted to a bishop on g1. The black bishop has to be a promoted pawn because of the unmoved pawns at f2 and h2.

d) So where did the white a-pawn go? It must have promoted, which would require **one** capture (on b7).

e) Now consider the white pawns at d6, f7, h5. **Six** captures were necessary for the pawns to reach those squares. That makes a total of **seven** captures by white pawns.

f) Black is missing **seven** pieces, so all past captures are accounted for. The only retracted moves that can be an "uncapture" are by the white pawns at d6, f7, or h5.

g) Since the white bishop did not capture on g2, the last move had to be **5.Bh3-g2#**.

h) In this position, before 5.Bh3-g2#, the last move by Black was not the capture ...exf6 because the only missing white piece was taken by the black h-pawn.

i) The last move was not ...Kg2-h1 because the king would be in an impossible double check on g2 from the bishop at h3 and knight at f4.

j) The last move was not ...g2-g1=B because the black king would be in an impossible check from the rook at f1. The rook could not capture on f1 (by Rd1xf1+ or Re1xf1+) because all missing black pieces were captured by pawns.

k) So the last move had to **4...e5-e4**.
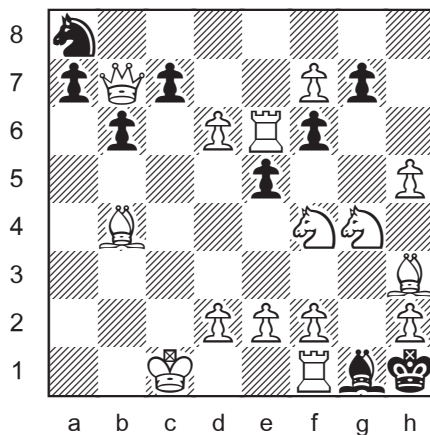
l) At this point, the black king is in check from the queen at b7. The queen did not capture on b7 because all black pieces were captured elsewhere. She did not move to b7 (from b8, for example) because then Black would not have a legal move on the previous turn. (The move ...b7-b6 was played earlier to allow the white a-pawn to promote.)

A discovered check by the knight at f4 (from d5 or g2) or by the pawn at d6 (from d5) would also leave Black without a legal move on the previous turn. The only other way that the check could occur is with an *en passant* capture. The last two moves were **3...d7-d5 4.c5xd6 e.p.+**.
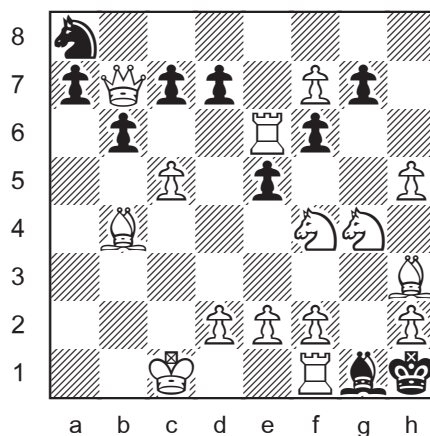
m) The black king is again in check by the white queen. This time it can be explained with the discovery **3.Rc6-e6+**, which gives the black e-pawn some "reverse mobility".

n) Black's preceding move had to be **2...e6-e5** (and not 2...e7-e5) because the black bishop on f8 exited the back rank earlier through e7 so that it could be captured somewhere by a white pawn.
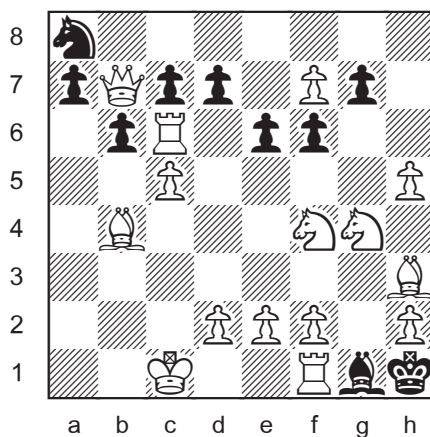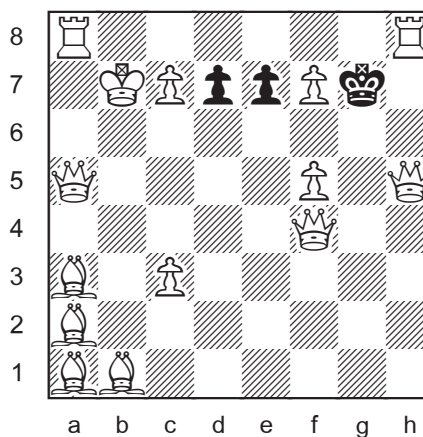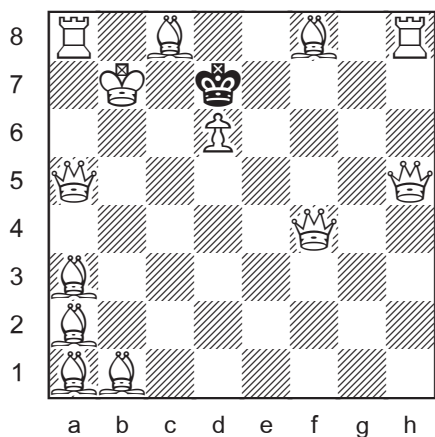
o) Now we encounter Borodatov's genius idea. The only way to give Black a legal move on the previous turn is to retract **2.Rd1-f1**. Black then takes back **1...g2-g1=B** and the check from the rook at d1 is "legalized" by **1.0-0-0+**. Voilà!
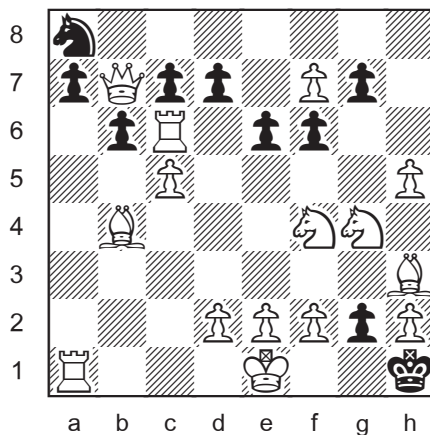
Retro 33

Nenad Petrovic 1954

problem

Last eleven moves:

1.f7-f8=B+	Kg7-f6
2.c3-c4+	e7-e5
3.f5xe6 e.p.+	Kf6xe6
4.c4-c5+	d7-d5
5.c5xd6 e.p.+	Ke6-d7
6.c7-c8=B#	

The **pre-existent** position, eleven moves ago

Two *en passant* captures and two underpromotions to bishop! A real show-stopper.

Analysis

a) The last move is easy. The check (and mate) from the bishop at c8 could only happen by the promotion **6.c7-c8=B#**. Here is the position before the "B-ing" of the pawn.
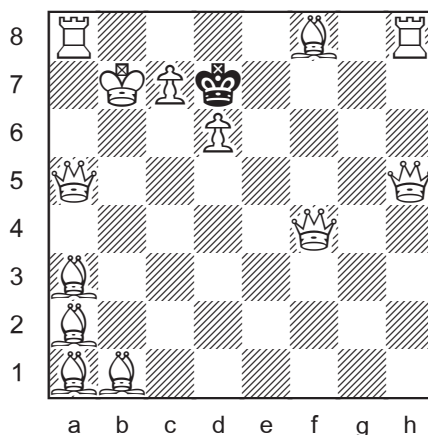

As usual, we must now find a legal move for Black on the preceding turn.

b) The black king would be in an illegal double check on any square he could have moved from, except e6.

c) On e6, the black king would be in a seemingly impossible check from the bishop on a2. But as we've seen many times in the past, improbable checks are often the result of an *en passant* capture. The three preceding moves had to be **4...d7-d5 5.c5xd6 e.p.+ Ke6-d7**.
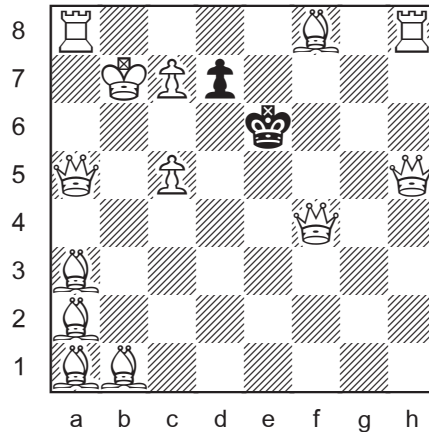

d) In this position, before the *en passant* sequence, the check from the bishop on a2 is explained by the discovery **4.c4-c5+**.

e) With the white pawn back on c4, the black king will be in double, triple, or quadruple check on any square he could move from last turn. The only legal possibility involves another *en passant*, with the black king on f6 taking a white pawn that captures on e6. The three preceding moves were **2...e7-e5 3.f5xe6 e.p.+ Kf6xe6**.
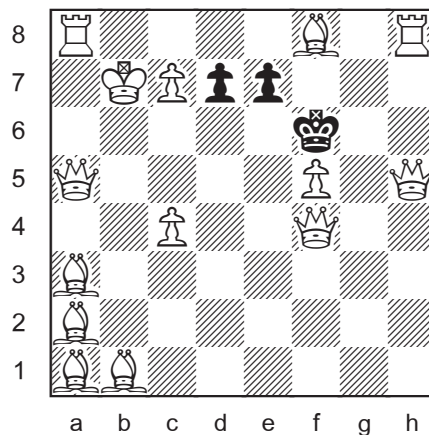

f) Before that *en passant* sequence, the check from the bishop on a1 was given by the discovery **2.c3-c4+**.

g) With the white pawn back on c3, the black king will be in an impossible double check on any square he could move from, except g7. So the preceding move had to be **1...Kg7-f6**. This move could not be a capture. If it were a capture, Black would not have a legal move on the turn before this, as will be seen shortly.
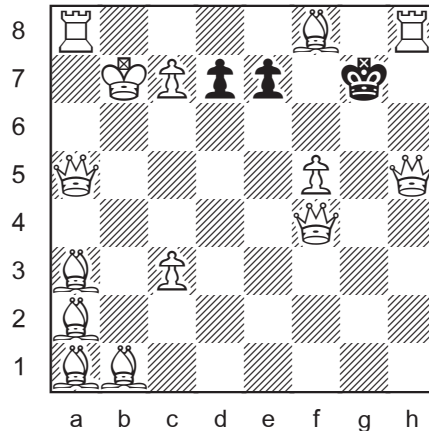
h) The check from the bishop at f8 must be by the promo **1.f7-f8=B+**.
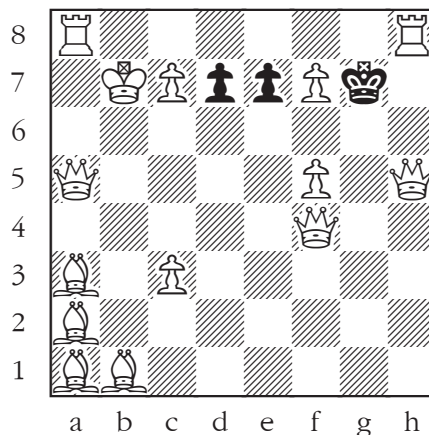
i) If Black's previous retraction (step g) had been an uncapture (1...Kg7xf6), there would now be a white knight on f6. (The only two missing white pieces are knights.) And Black would not have a legal move on the preceding turn. With f6 vacant, the last move was either **...Kf6-g7** or ...**Kf6xg7(N)**.
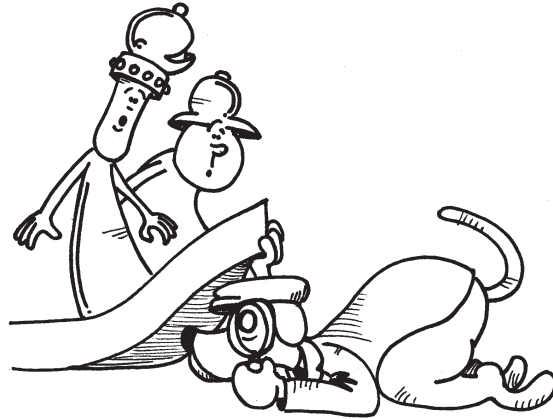
Quite the problem.

Sidenote 1

Petrovic published a version of this problem, also in 1954, with white knights added on g1 and h1. This change extends the retroplay one move. With the knights on the board, the preceding move from the last diagram must be the non-capture ...Kf6-g7.

Until next time!