

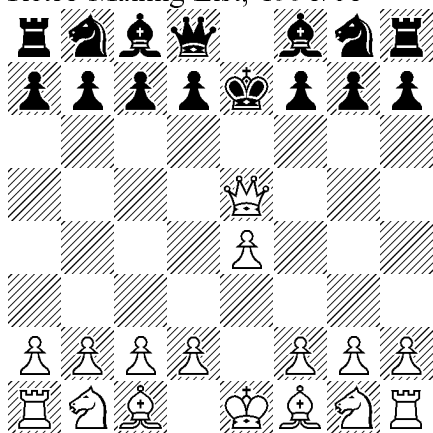
An introduction to

PROOF GAMES

In a "proof game" problem the solver does not seek the best move but rather the game in which White and Black cooperate to reach the diagrammed position in the stipulated number of moves. Let's start with this example:

1) Joost De Heer

Retro Mailing List, 1996/06



16+15: PG in 2.5 moves

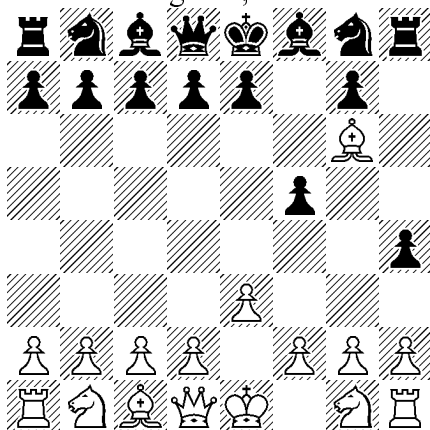
Above the diagram appear the author's name and a citation to the problem's first publication. Below are indicated the piece-count (16 White and 15 Black) and the stipulation. Here "PG in 2.5 moves" means the diagram has been reached after a proof game (PG) containing three White and two Black moves.

This first proof game is hardly breathtaking, but it is simple, short and above all there's only one game leading to the diagram. This uniqueness is of prime importance for the soundness of the problem, except in very particular cases.

Now let's look at a more interesting problem which nevertheless is still simple:

2) Richard Stanley

Retro Mailing List, 1996/05



16+16: PG in 3.5 moves

The three Black moves were obviously made by the f- and h-pawns, but in what order were they played? And how did the White bishop reach g6? This little "invisible" move is one of the many tricks composers use to lure solvers - like the one you are becoming!

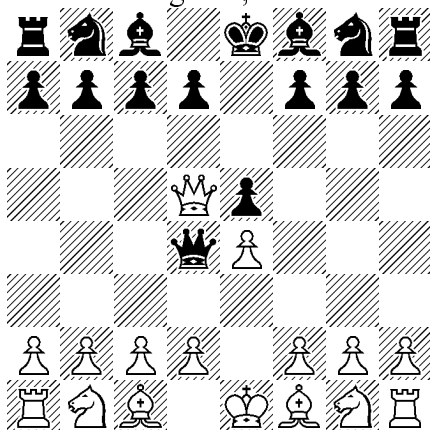
THE THEMES

Let's examine some effects which have been explored by composers and try to appreciate the content of the proof game composer's bag of tricks.

First, a paradoxical effect which might be called a "proof game oddity":

3) Andrew Buchanan

Retro Mailing List, 2004/01/23



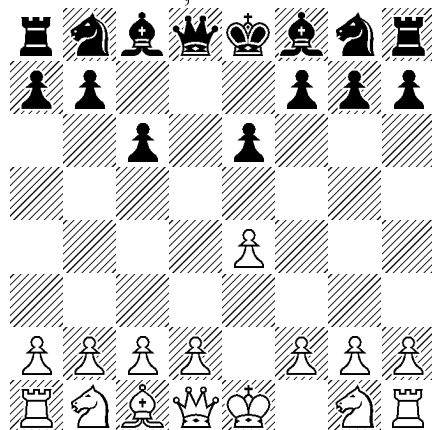
16+16: PG in 3.5 moves

The position in diagram 3 is symmetrical, but the play is asymmetrical since White has made one move more than Black!

The **switchback** of a piece is an invisible move by definition, and it is so common that it is rarely found alone.

4) Tibor Orban

Die Schwalbe, 1976

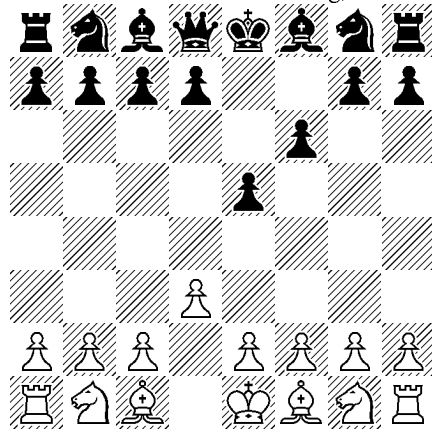


15+15: PG in 4.0 moves

Diagram 4 is easy to reach in three White and three Black moves, but the stipulation requires four moves! Search the piece which performed the switchback. And do the same for diagram 5.

5) Martin Wolfgang Hoffmann

Schweizerische Schachzeitung, 1989/06



15+16: a) PG in 4.0 moves

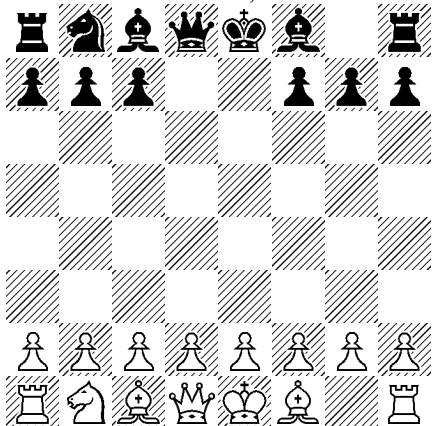
b) -BQd8

The b) requires the solver to find a second PG in 4.0 moves with the Black queen d8 removed from diagram. A real Bishop-fest!

The Knights pair allows one to masquerade as the other. In diagram 6 lurks such an **impostor**:

6) Ernest Clement Mortimer

(version by Andrey Frolkin)
Die Schwalbe n°71, 1981/10



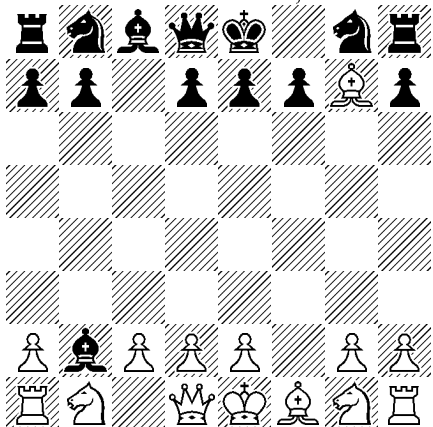
15+13: PG in 4.0 moves

The position is referred to as "**at-home**" since the diagrammed pieces appear never to have moved. Rooks, like Knights, are candidates for the impostor trick, but not Bishops (at least not in orthodox chess...).

The **phoenix** theme involves a rebirth happening after the original piece has been reduced to ashes. If this order is reversed we have a **premix**, and Diagram 7 shows this two kinds of invisible promotions:

7) Stephan Dietrich

Problem Paradise n°45, 2008/01

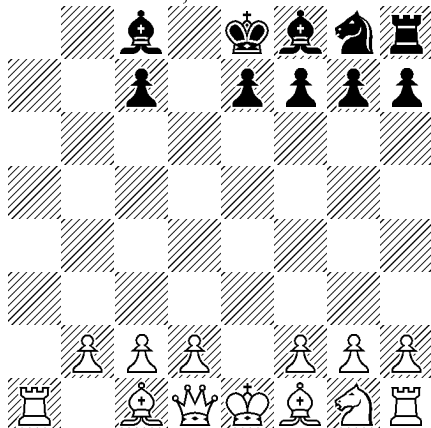


14+14: PG in 6.0 moves

We can conceal a promotion even more with the **Pronkin** theme: a promoted piece goes to the home square of the same-type piece (which has been captured).

8) Thierry Le Gleuher

Problemlad, 2000/06



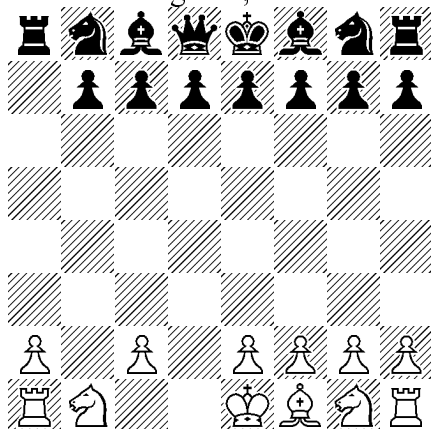
13+10: PG in 6.5 moves

With more moves and an at-home position, diagram 8 discloses nothing of the game's history. A small hint may be in order: a Pronkin Rook is involved.

Another effect related to promotion: if a promotee gets captured, we have the **Ceriani-Frolkin** theme. In diagram 9 a promoted Rook is captured:

9) François Labelle

Retro Mailing List, 2005/02/04



12+15: PG in 6.5 moves

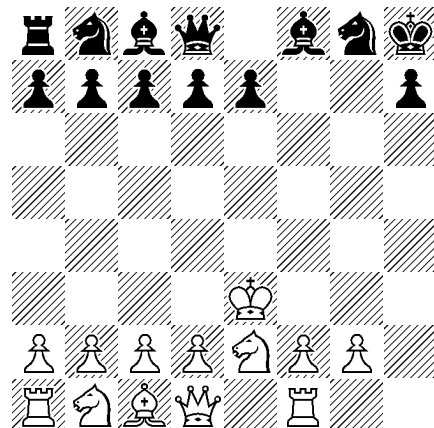
Note that a promoted piece may be captured (Ceriani-Frolkin theme) after having been a Pronkin.

But when the promotee is captured on its promotion square without having moved, we have a **Schnoebelen** promotion. In diagram 10 this theme is doubled:

10) Michel Caillaud

Nunspeet, 2002

Commendation

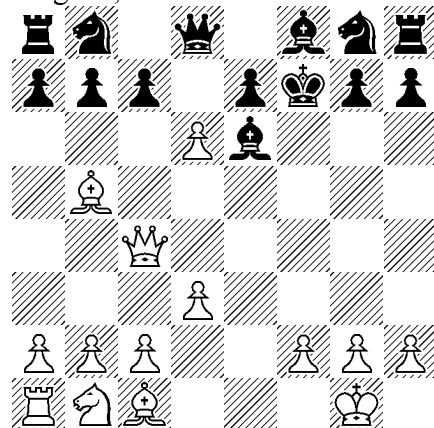


13+13: PG in 8.5 moves

The **Valladao-Monteiro** theme requires a problem containing a promotion, castling, and an en passant capture:

11) Andrew Buchanan

Original, 2010/01



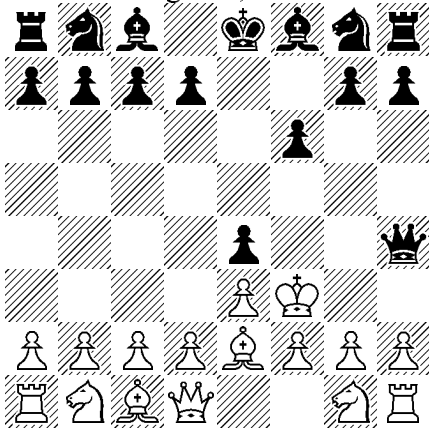
14+14: PG in 9.0 moves

A few other effects are defined in the solutions to the following problems, but many more exist, which you may find at the following internet sites:

- * www.janko.at/Retros/
- * www.softdecc.com/pdb/search.pdb
- * www.pairlist.net/pipermail/retros/
- * abrobecker.free.fr

12) Richard Stanley

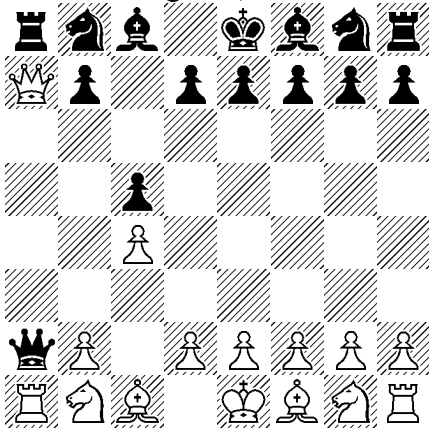
Retro Mailing List, 1996/05



16+16: PG in 4.0 moves

13) Andrew Buchanan

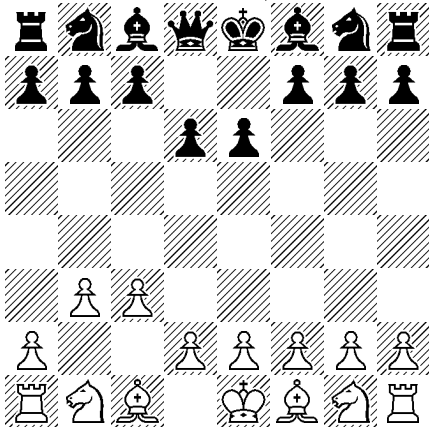
Retro Mailing List, 2004/01/24



15+15: PG in 3.5 moves

14) Klaus Kiesow

Die Schwalbe n°199, 2003/02

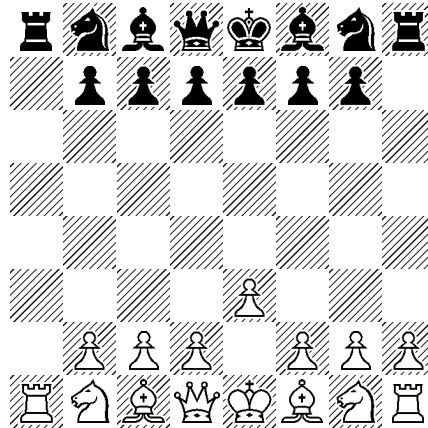


15+16: PG in 4.0 moves

15) Pascal Wassong

Messigny, 1995/06

1st Honorable Mention

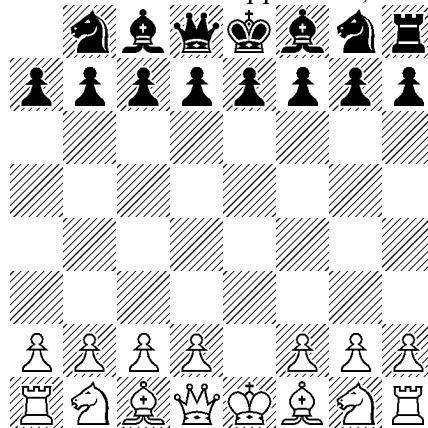


15+14: a) PG in 4.5 moves

b) WPh2→a2

16) Ronald Turnbull

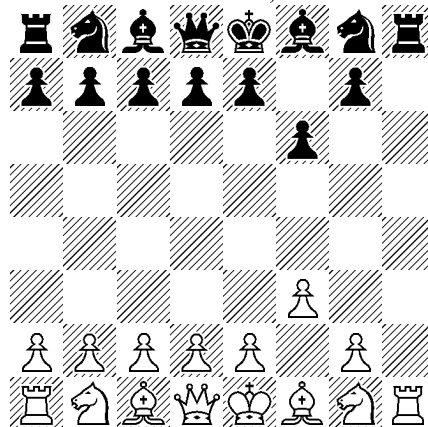
The Problemist Supplement, 1993



15+15: PG in 7.5 moves

17) Hans Heinrich Schmitz

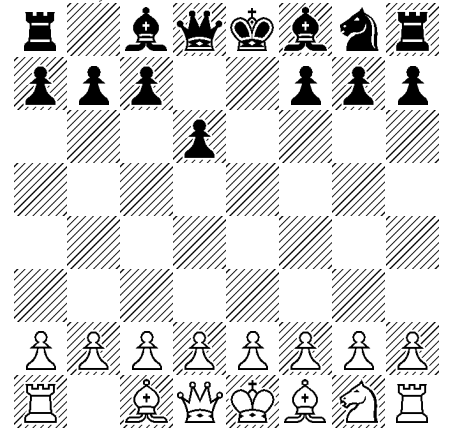
Die Schwalbe n°150, 1994/12



15+15: PG in 5.0 moves

18) Geza Schweig

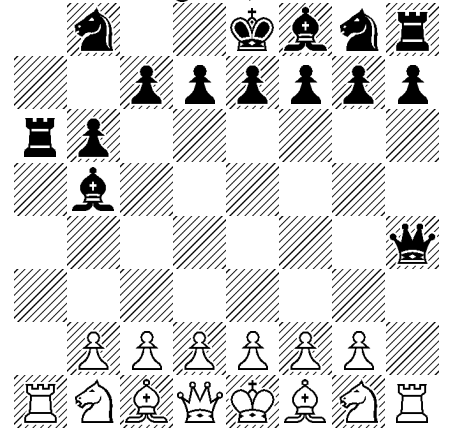
Tukon, 1938



15+14: PG in 4.0 moves

19) Andrew Buchanan

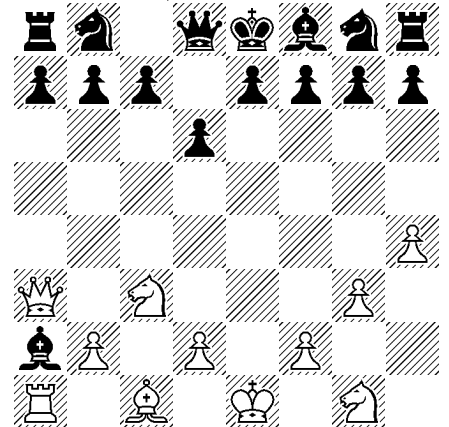
Retro Mailing List, 2010/01/05



14+15: PG in 8.5 moves

20) Nicolas Dupont

Problemesis, 2002



11+16: PG in 6.5 moves

21) François Labelle

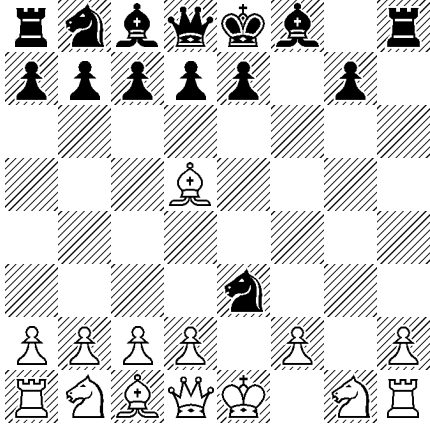
Internet, 2003/12

Find the only game finishing with:

- a) 3... Dd4# b) 4... Db5#
 c) 5. Dxe4# d) 5... Th1#

22) Henrik Juel

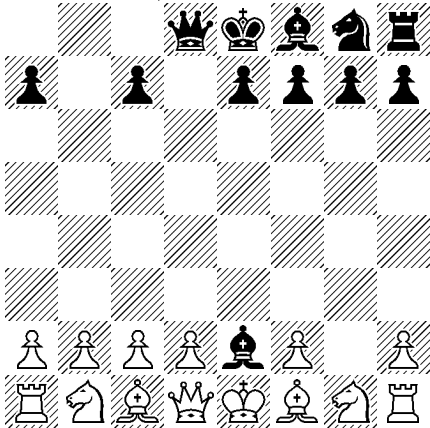
Thema Danicum n°86, 1997/04



14+14: PG in 6.0 moves

23) Christoph Fieberg

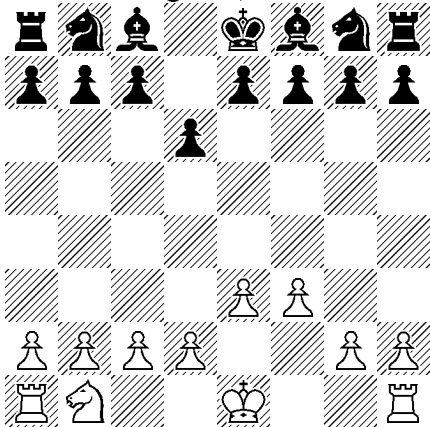
Problemesis, 2004/08



14+12: PG in 6.5 moves

24) Andrew Buchanan

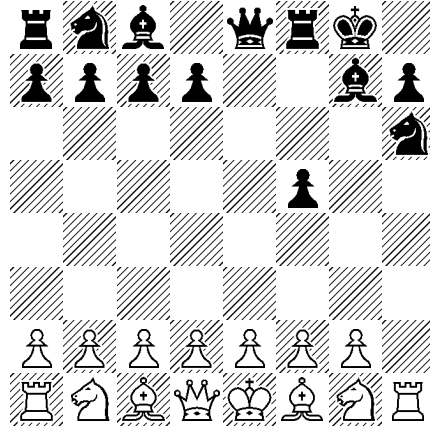
Retro Mailing List, 2005/02/11



12+15: PG in 7.5 moves

25) Joost de Heer

Messigny, 2005/05



15+14: PG in 7.0 moves

SOLUTIONS

- 1) 1.e4 e5 2.Qh5 Ke7 3.Qxe5#
 2) Mate by a B. 1.e3 h5 2.Bd3 h4 3.Bh7 f5 4.Bg6#
 3) 1.e3 e5 2.Qf3 Qh4 3.Qd5 Qd4 4.e4
 4) 1.e4 e6 2.Bb5 Ke7 3.Bxd7 c6 4.Be8 Kxe8
 5a) 1.d3 e5 2.Qd2 Ba3 3.Qb4 f6 4.Qf8+ Bxf8
 5b) 1.d3 e5 2.Bh6 Qg5 3.Qc1 Qxc1+ 4.Bxc1 f6
 6) 1.Nf3 e5 2.Nxe5 Ne7 3.Nxd7 Nec6 4.Nxb8 Nxb8
 7) 1.f4 c5 2.f5 c4 3.f6 c3 4.fxg7 cxb2 5.gxf8=B bxc1=B 6.Bg7 Bb2
 8) 1.e4 d5 2.exd5 Nc6 3.dxc6 Qd5 4.cxb7 Qxa2 5.bxa8=R Qxb1 6.R8xa7 Qxa1 7.Rxa1
 9) 1.b4 a5 2.Bb2 axb4 3.Bc3 bxc3 4.Qc1 cxd2+ 5.Kd1 dxc1=R+ 6.Kd2 Re1 7.Kxe1
 10) 1.h4 f5 2.h5 f4 3.h6 f3 4.hxg7 fxe2 5.gxh8=R exf1=R+ 6.Ke2 Kf7 7.Ke3 Kg7 8.Ne2 Kxh8 9.Rxf1
 11) Ceriani-Frolkin of B. 1.e4 f5 2.Bb5 f4 3.Ne2 f3 4.oo fxe2 5.e5 exf1=B 6.Qg4 Bc4 7.d3 Kf7 8.Qxc4+ d5 9.exd6ep+ Be6
 12) Mate by a P. 1.e3 e5 2.Ke2 Qh4 3.Kf3 f6 4.Be2 e4#
 13) PG oddity. 1.c4 c5 2.Qb3 Qa5 3.Qb6 Qxa2 4.Qxa7
 14) K switchback. 1.c3 e6 2.Qa4

Ke7 3.b3 d6 4.Qe8+ Kxe8

15) a) Three switchbacks! 1.e3 a6 2.Bxa6 h5 3.Bf1 Rxa2 4.Qxh5 Ra8 5.Qd1 b) Idem. 1.e3 h5 2.Qxh5 a6 3.Qd1 Rxh2 4.Bxa6 Rh8 5.Bf1

16) Ns switchbacks. 1.Nf3 Nc6 2.Ne5 Nd4 3.Nc6 Rb8 4.Nxb8 Nxe2 5.Nc6 Nd4 6.Ne5 Nc6 7.Nf3 Nb8 8.Ng1

17) R and N switchbacks, symmetric position, asymmetric play. 1.h4 Nf6 2.h5 Nxh5 3.f3 Nf6 4.Rxh7 Ng8 5.Rh1 f6

18) Ng8 is an impostor, it comes from b8. 1.Nc3 d6 2.Nd5 Nd7 3.Nxe7 Ndf6 4.Nxg8 Nxg8

19) Double imposture of Rs (*Platzwechsel*=exchange of place). 1.h4 b6 2.Rh3 Ba6 3.Ra3 Bb5 4.Rxa7 Qc8 5.a4 Qa6 6.Ra3 Qxa4 7.Rh3 Qxh4 8.Ra1 Ra6 9.Rh1

20) White pieces are on dark squares. 1.h4 d6 2.Rh3 Bxh3 3.g3 Bxf1 4.c4 Bxe2 5.Qb3 Bxc4 6.Qa3 Bxa2 7.Nc3

21a) Synthetic game: no diagram, entirely determined by last move.

1.f3 e5 2.Kf2 Qh4+ 3.Ke3 Qd4#

21b) 1.d4 e5 2.Kd2 Qg5+ 3.Kc3 exd4+ 4.Kb3 Qb5#

21c) 1.d4 e5 2.Qd3 Ke7 3.Bg5+ Ke6 4.Be7 e4 5.Qxe4#

21d) 1.g4 h5 2.Bg2 hxg4 3.Bxb7 Rxh2 4.Nh3 Bxb7 5.oo Rh1#

22) N phoenix and B prenex. 1.g4 f5 2.g5 f4 3.g6 f3 4.gxh7 fxe2

5.hxg8=B exf1=N 6.Bd5 Ne3

23) Pronkin B. 1.e4 d5 2.exd5 Nc6 3.dxc6 Bh3 4.cxb7 Bxg2 5.bxa8=B Bxf1 6.Bg2 Be2 7.Bf1

24) Castling paradox: white castled. 1.e3 d6 2.Bb5+ Qd7 3.Ne2 Qxb5 4.oo Qxe2 5.f3 Qxd1 6.Kf2 Qxc1 7.Rh1 Qe1+ 8.Kxe1

25) Castling paradox: black has not castled. Ceriani Frolkin of N. 1.h4 f5 2.h5 Kf7 3.h6 Qe8 4.hxg7 Nh6 5.g8=N Bg7 6.Nxe7 Rf8 7.Ng8 Kxg8

Alain Brobecker et al., Mar. 2010

Translated by Gianni Donati