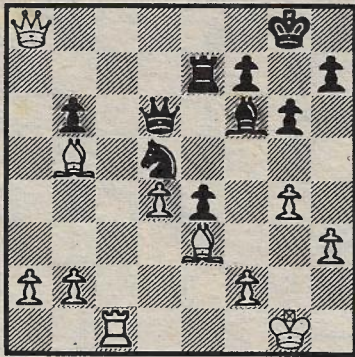


# "Does not compute"

AT THE IFIP World Computer Chess Championships in Toronto this year the top Soviet programme "Kaissa", as black, apparently committed public suicide when it gave a rook for nothing in the diagrammed position by 34 ... Re8.



The 500-strong audience groaned and "Kaissa's" seconds subjected their programme to an overnight trace, for every master in the hall, including the great Mikhail Botvinnik, had concluded the rook giveaway was caused by a bug in the programme.

They found, however, not a bug but a brilliant five move mate calculated by "Kaissa" (and no one else) if the computer had played it's alternative move 34 ... Kg7.

In desperation "Kaissa" had opted for the life prolonging rook sacrifice. Can you find what "Kaissa" saw and the masters missed if Black plays 34 ... Kg7? Solution below.

Botvinnik thought 16 ... Nb4! would be very strong.

- 17. Nxd5 gxf4
- 18. Nxe7 ch Nxe7
- 19. Qxd7 Ng6
- 20. Qxf7 Rxf7
- 21. g4 Rd7
- 22. Rad1 Rad8
- 23. Rxd7 Rxd7
- 24. Kg2 Kg7
- 25. Ng5 Rd2
- 26. Rb1 Rc2
- 27. b3 Ne5

Here the Cyber 176 to which

"Chess 4.6" was connected broke down but control data engineers switched to another machine in only 7 minutes.

- 28. Rh1 Rxa2
- 29. Rh4 Nd3
- 30. Nh3 Rb2
- 31. g5 Kg8
- 32. Nxf4 Rxf2 ch
- 33. Kg3 Rxf4
- 34. Rxf4 Nxf4
- 35. Kxf4

A challenge! Would "Chess 4.6" be able to convert its advantage into a win?

- 35. ... Kf7
- 36. b4 Ke6
- 37. Ke4 a6
- 38. Kf4 Kd6
- 39. Ke4 c5
- 40. bxc5 ch Kxc5
- 41. Kd3 a5
- 42. Kc3 a4
- 43. Kd3 Kb4
- 44. Kc2 Kxc4
- 45. Resigns

Due to the great reduction in material "Chess 4.6" was searching to a depth of 12 ply in the pawn ending.

### Solution:

After 34 ... Kg7 white mates with 35. Qf8ch!! Kxf8 36. Bh6ch! Kg8 37. Rc8 ch! etc. An example of a computer being more creative than humans — many masters might have simply disregarded 35. Qf8ch!!, despite it being a forcing move. The computer of course looks at all forcing lines.

MURRAY CHANDLER

In first place at Toronto was the American programme "Chess 4.6", trained by David Slate and Larry Atkin. "Chess 4.6" enjoys an "expert" rating of above 2000, making it considerably stronger than 99 per cent of the population. But it still can't win English weekend Swisses! At the recent large Harrow congress, won jointly by Czech GM Hort and the young British player Peter Large, it scored 3½/6 points. Its first round loss to Len Perry, who is rated weaker than "Chess 4.6" was instructive. "Chess 4.6" snatched a pawn on move 13 by an ingenious combination but in doing so decentralised its knight into a corner, where it remained temporarily safe but trapped. The computer doesn't have the concept "temporarily safe but trapped" in its repertoire.

Although "Chess 4.6" finished first and "Kaissa" second at the Computer v Computer Champs, "Chess 4.6" and "Kaissa" never actually met because of the Swiss System of pairing being used; so afterwards an exhibition game was arranged.

**Kaissa**      **Chess 4.6**

1. e4      Nc6  
David Slate and Larry Atkin had adjusted programme parameters before the game to avoid a repetition of the Nimzovich Defence which "Chess 4.6" had played in an earlier round. "Chess 4.6" still played the defence however, but after two moves "Kaissa" was out of the book anyway.

- 2. Nf3      e6
- 3. d4      d5
- 4. Bd3      dxe4
- 5. Bxe4      Bd7
- 6. O-O      Nf6
- 7. Re1      Nxe4
- 8. Rxe4      Be7
- 9. c4      f5?

An ugly move which "Chess 4.6's" programmers didn't appreciate.

- 10. Re1      O-O
- 11. Nc3      f4
- 12. Qd3      Qe8
- 13. g3?      fxg3
- 14. hxg3      Qf7
- 15. Bf4      g5
- 16. d5      exd5?