QUALITY CHESS

THINK LIKE A SUPER-GM

MICHAEL ADAMS & PHILIP HURTADO

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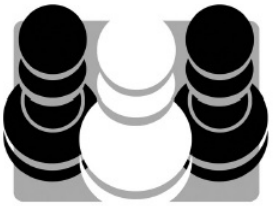
Think Like a Super-GM

By

Michael Adams
Philip Hurtado



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Key to symbols used

⩲	White is slightly better
⩱	Black is slightly better
±	White is better
∓	Black is better
+−	White has a decisive advantage
−+	Black has a decisive advantage
=	equality
⩳	with compensation
⇄	with counterplay
↑	with an initiative
∞	unclear
?	a weak move
??	a blunder
!	a good move
!!	an excellent move
!?	a move worth considering
?!	a move of doubtful value
□	only move
#	mate
>–2.5	We shall define this to mean that Black has an advantage of magnitude 2.5 or more. In other words this means Black is certainly winning.
>+2.5	We shall define this to mean that White has an advantage of magnitude 2.5 or more. In other words this means White is certainly winning.

Acknowledgements

Firstly, the authors wish to say a big “Thank you” to all the players who participated in the puzzlesolving sessions, as well as the eyetracking experiment.

Thanks to Francois Labelle for helping to supply some statistical information, and to Charlie Storey for providing the game score and some comments about Puzzle 33.

We would like to give special thanks to Jon Ward, Director of Tobii Pro UK Limited, for providing us with the software licences to run the heat maps and videos, and to Dr. Ben Marshall, for helping to set up and oversee the eyetracker experiment.

Publisher's Foreword

This is a chess book unlike any other. Even the authors have had a hard time summarizing the content, producing no less than six mini-introductions between them! You will 'meet' the two co-authors soon enough, as each author has written his own introduction. Michael (Mickey) Adams obviously needs no introduction – there are not many individuals in the world who can rival his credentials as a chess player. The name of Philip (Phil) Hurtado will be less recognizable to most readers, but Phil's creative vision and scientific knowhow kickstarted this project and remained instrumental throughout. The main purpose of this foreword is to offer the reader a clear summary of what you can expect from this book.

If I had to summarize this book in just a few words, I would say: "Puzzle book meets *The Master Game* meets Science." (By the way, neither Phil nor Mickey has ever mentioned *The Master Game* as a source of inspiration for the project – but it was the first point of reference that came to my mind when I heard about the format of the book.)

For those who don't know, *The Master Game* was a BBC production of televised tournaments involving grandmasters and other strong players, which ran from 1976-1983. What made the production uniquely compelling was that, immediately after each game had ended, the producers made audio recordings of the players as they reproduced their thought processes out loud. Thus, in the final production, the television audience would watch the games unfold while listening to the thoughts of the players, as if in real time. The series was also turned into books, which I had on my shelf as a kid – and although I was too young to watch the shows when they were originally broadcast, I remember seeing a few of them on VHS tape when I was older. Whether in video or book format, I always found it fascinating to follow the thoughts of the players.

So how do these three elements of puzzles, recorded thought processes and science come together? Essentially, Phil designed a grand science experiment to analyse the performance of different chess players of varying abilities when solving a selection of puzzles, and successfully persuaded Mickey to partner up in the project. Phil recorded players' thoughts and, with the players' permission of course, included a selection of them under the solutions for each puzzle, giving the reader a fascinating glimpse into the mental processes of each solver. Phil also meticulously recorded the moves chosen, time taken and much more for each solver, with a view to analysing the mass of data and using the scientific method to draw conclusions about what exactly separates the strongest chess players from everyone else. Along the way, Mickey's involvement increased and the project evolved into something even more special than was originally envisaged.

Here is a breakdown explaining what you can expect in each of the main parts of the book.

Puzzle Section

The largest section of the book consists of forty puzzles of varying difficulty. You are invited to solve each puzzle, writing down your next move plus any supporting variations, as well as your evaluation of the position. So far, this sounds much like any other puzzle book. However, this book does not merely contain a standard solution. Instead, under the solution section for each puzzle you will find:

1) The detailed thought processes of several players of varying playing strengths – from near-novice players, through to club players, IMs and GMs, and finally Michael Adams himself

During breaks in editing, I solved several of the puzzles myself – partly for my own training as a player, and also to be able to gain a better experience of this book from the reader's perspective. Later, as I edited the corresponding solution sections, I found it fascinating to compare my thinking to that of the featured solvers. Every reader's experience will be different, but mine revealed the following insights:

* At my best, I was able to solve some of the most difficult positions – perhaps not with quite the same efficiency and precision as Mickey and the other top GMs, but still in a way that confirmed I am capable of performing well in certain types of position.

* For other puzzles, by some combination of intuition and calculation, I was able to select the best move, but comparing the thought process of Michael and other top players highlighted gaps in my analysis and general chess understanding. I may have chosen the right move, but the process by which I got there fell far short of Mickey's level. The ability to follow the exact thought process of Mickey and other strong GMs was a real eye-opener in terms of the kinds of details I can improve on.

* At my worst, there were a few puzzles where I concentrated hard but completely failed to hit upon the right idea – giving me a clear idea of the types of position where my play needs to be improved. Again, it was illuminating to see how quickly Mickey and other leading GMs were able to get right to the crux of certain positions which I struggled with.

In short, the ability to compare my own thought process with that of weaker, equal-strength and stronger players was something I found incredibly illuminating, and has significantly increased my awareness of my own strengths and weaknesses as a player. I have no doubt that the readers will find this process to be just as interesting and beneficial as I did.

2) A "Deeper Analysis" section by Michael Adams

Once the thought processes of the various players have been presented, Michael then provides a comprehensive solution to the puzzle. Each solution contains the obligatory engine analysis of course – but more importantly, Mickey's personal insights, including his reflections on the few puzzles where his own solution was not the best.

3) Post-Solution section

Following the analysis section by Michael, you can find the scoring system for that puzzle, followed by a few final reflections about the puzzle from both of the authors. What made the position challenging? What were the most common errors in thinking among the panel of solvers? What does the Super-GM regard as the defining features of the position? And what were the key attributes which enabled the strongest players to find the best solution where others failed?

***

By now you can see why there are only forty puzzles! The solutions are massively expanded by the inclusion of the thought processes of numerous players. This is of tremendous value to the reader in my opinion – and few (if any) other puzzle books have offered such a feature.

This much alone would have made the book a valuable addition to chess literature – but there's more to follow.

Bonus Puzzle Section

Essentially this is more of the same. These eight additional puzzles are positions which, in the authors' opinion, were ultimately not quite suitable for the main puzzle section, but which nevertheless contain a great deal of instructive content. They are presented in the same way as the main puzzles, with solver commentaries and Michael's detailed analysis included in every solution.

Conclusions from the Puzzles

The book's title *Think Like a Super-GM* was not just a sales pitch or 'clickbait' – the authors really have left no stone unturned in trying to unravel the mystery of what separates the thinking of elite players from the rest of us. I think Phil was really in his element in this section, channelling what I will cheekily refer to as his 'Mad Scientist' persona to crunch the numbers and draw on the data to shed light on matters such as:

*** The importance of the candidate move**

*** Why do the strongest players devote most of their thinking time to checking the consequences of the best move after they have already found it?**

*** "How many moves can you think ahead?"** is a question that you will probably roll your eyes at – but Phil has nevertheless drawn on the experimental data in an attempt to answer it for players all the way up to Mickey's level.

Once Phil has finished shining the scientific spotlight on these and other questions which the experimental data helps to answer, it is Michael's turn to offer his conclusions in a section entitled

Grandmaster Secrets. Here, the Super-GM offers what I found to be some highly instructive insights into what he sees as the key attributes which enabled him and the other grandmasters to consistently outperform lesser players in the puzzle test. Once again, having every player's thought process available proved invaluable here, as Mickey was able to illustrate his points by revisiting several puzzles and recapping the exact reasons players gave for choosing or rejecting certain moves.

***

We would certainly have been proud to publish the book if it ended here, but the authors had one more ace up their sleeve.

The Eyetracker Experiment

The idea for this actually came from Mickey after he watched a sports documentary involving laboratory testing of an athlete's eye moments while performing. Mickey mentioned the idea to Phil and, in not much more than the blink of an eye, the experiment was arranged in a suitably equipped testing facility.

Simply put, the eyetracker experiment used sensors to follow the eye movements of Michael and other players as they solved chess puzzles in real time. The technology is so precise that it was able to pinpoint the exact squares on which players' eyes were focused at all times. Once the player had finished solving each puzzle, at the touch of a button the lab technicians produced a 'heat map' for that puzzle, offering a vivid, visual representation of the areas of the board that received the most attention from that solver. Comparing Mickey's eyetracking and heat maps to those of the other players offered yet another means of looking inside the mind of a Super-GM and comparing Mickey's thinking process with players at lower rating levels.

***

Summing up, this is a remarkable book with many unique features. With Mickey's superlative chess ability alongside Phil's scientific and data-analysing acumen, we could hardly have wished for two more suitably qualified authors for this project. The ability to think like a Super-GM is something only a select few players will ever acquire, but this book does offer a number of unique insights which help to uncover the mystery of how such players perform as well as they do. I hope you will enjoy solving the puzzles and comparing your thoughts to those of Mickey and the other solvers. With the further insights gained from Phil's data analysis and Mickey's expert conclusions, I am quite sure you will find yourself thinking about chess in completely different ways from before – taking you, if not all the way to Super-GM level, then at least a healthy step in that direction.

Andrew Greet
Editor, *Think Like a Super-GM*
December 2021

Part I

Introduction

Chapter 1.1

Introduction by Philip Hurtado

That Day in the Library

"We must be careful not to believe things, simply because we want them to be true."
Richard Feynman, Winner of The Nobel Prize in Physics 1965

Let me introduce myself: I am Philip Hurtado. I studied Aeronautical Engineering at the University of Hertfordshire, followed by a Master's degree in Physics at the University of St Andrews.
Although I had short stints in both aerospace and nuclear fusion research, I ended up developing a career in car manufacturing. Here is the interesting part: whilst working in automotive plants, I discovered a technique for improving construction processes called Six Sigma. This method uses advanced statistical analysis, to help engineers increase the performance of a production line, by decreasing process variation. This technique leads to a reduction in defects and a dramatic improvement in product quality. You can see an example of how effective the Six Sigma method is, when you look at the beautifully flushed doors of a new Range Rover Velar and compare them to older models.

Anyway, why am I telling you all this?

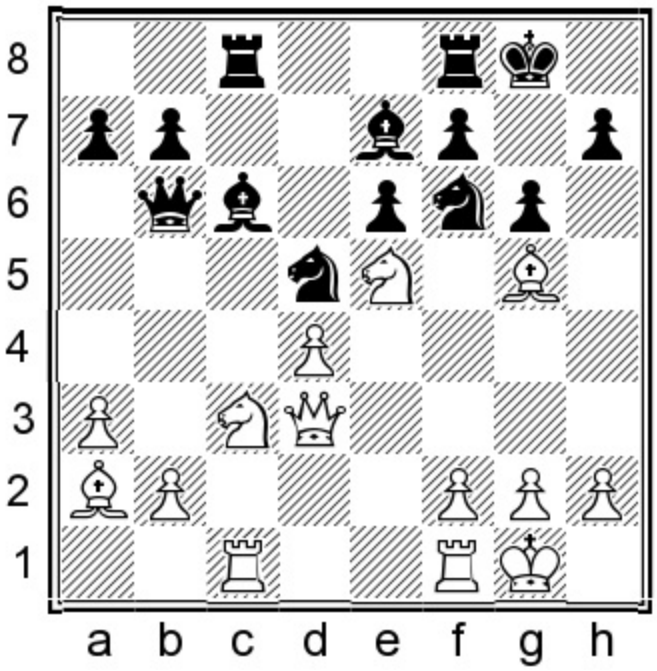
Having spent the past five years working as a Lean Six Sigma Black Belt consultant, I thought to myself, “Why not apply these same continuous improvement techniques to my chess?” After all, I have access to both the statistical software and the chess engines that would enable me to measure and monitor my progress.

For six months, I designed some experiments to figure out which changes had the biggest effect on improving my chess. I tried all sorts of things: I studied the effect of diet, exercise, time of play, drinking energy drinks, studying openings, studying endgames and so on. The funny thing I found is that a good night’s sleep, combined with being on holiday, with a happy financial situation and general peace of mind, gave better results than all of the other factors combined. Still, the improvement was only small. Maybe 100 Elo points, from 1900 to 2000, which still fell well within the natural variation of my playing strength.

So a second idea occurred to me: why not devise an experiment that would uncover how a top grandmaster makes decisions? I could then compare it to the way I think about my own moves, and learn from the differences. Again, I would have the aid of a chess engine to help measure the quality of the moves, and I would have the statistical software to determine how significant these differences are. But before we begin, let me share a bit of my personal chess background.

Thirty-two years ago, at the age of nineteen, I came across a fascinating chess book, which I picked up at Hove Library on Church Road, close to where I used to live with my grandmother. That book was called *Thought and Choice in Chess*. It was written by a Dutch psychologist who conducted a spellbinding experiment, where he asked famous chess masters and amateurs to think aloud, whilst trying to solve chess puzzles.

I quickly asked the lady at the library for a piece of paper, so I could cover the solutions and set out trying to find out the best moves myself. Apart from the sheer enjoyment of trying to solve the puzzles, I was completely mesmerized by reading the train of thoughts of some of the masters, in particular those by former World Champion Alexander Alekhine, my all-time favourite chess player.



Chess master and psychologist Adriaan de Groot gave this position to Alekhine, Keres, Euwe, and other leading players at the 1938 AVRO tournament, as well as to a number of weaker, but still expert, players. With his experiment, de Groot was trying to unravel the mysteries behind thinking and decision-making in chess, and determine the differences between strong masters and weaker players.

You may wish to consider the position yourself, before comparing your thoughts to those of Alekhine, as shown below.

Here are Alexander Alekhine's comments to the puzzle shown to him by de Groot. I am sure you will love them as much I did when I first read them thirty-two years ago, in a quiet library in the south of England.

Alekhine spent nine minutes on the above position, on 28 November 1938. The original commentary has been changed to algebraic notation.

Comments by Alexander Alekhine

At first sight there is a dark memory of a tournament game between Botvinnik and Vidmar (Nottingham). There is certainly a resemblance: The same queen position on d3. Opening type: Queen's Gambit Accepted.

In half an hour I should be able to logically reconstruct the moves up to this position.

Is the pawn on b2 really attacked?

Let's see what counter possibilities White has. Which moves are worth considering?

1.♗xd5 has to be calculated. 1...♗xd5 is not good; 1...♘xd5 is no good.

So, 1...exd5. And now the knight on f6 is getting a little weak.

2.♘g4 or 2.♖fe1 might follow.

Or also 2.♘xc6 followed by 3.♖e1.

Or possibly 2.♕f3.

Well, in any case, 1.♗xd5 is one enticing move.

But now let's have a look at other possibilities:

1.♘g4 deserves consideration. But doesn't look so good.

1.♘xd5 maybe. 1...♘xd5 2.♗xd5 ♗xg5, with many recapturing possibilities. But at first sight, none convincing.

1.♘xc6. But after 1...bxc6, the d5-square is well controlled. That's a pity.

In any case, White has by far the best of it. I would be very happy if I had such a position in a tournament game.

Are there any other moves apart from 1.♗xd5 that are decisive?

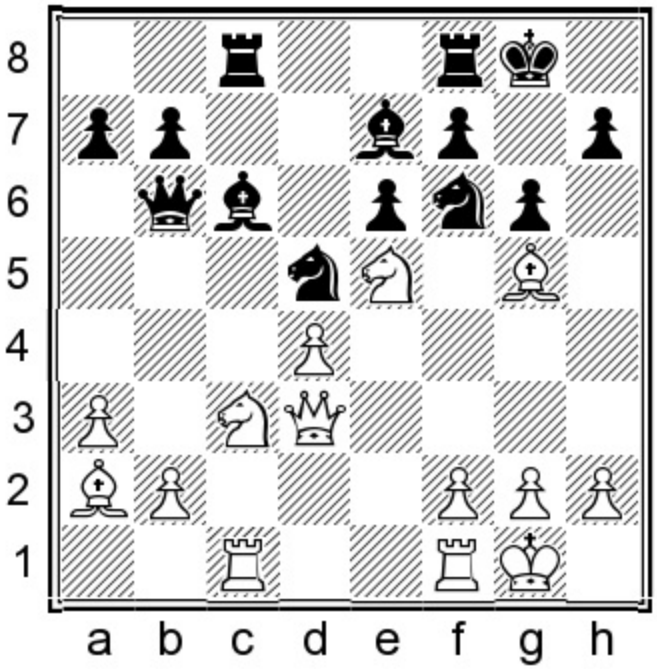
1.♗xd5 is very strong, that much is certain.

1.♘xc6 bxc6, there is pressure on c6, White has the pair of bishops. Also very agreeable. But the position promises more.

Let's check over other sorts of things again...

Well, in case of time pressure, I would play 1.♗xd5.

Analysis with additional variations added by Michael Adams



Alekhine begins by calculating:

1.♗xd5!

Alekhine describes as inferior three other moves:

1.♘g4? he mentions as "deserves attention, but doesn't look so good." The second part of this statement is more accurate, as 1...♘xg4 2.♘xd5 ♗xd5 3.♗xe7 ♗xa2 wins for Black.

1.♘xd5? ♘xd5 he understandably says is unconvincing.

Alekhine likes White after 1.♘xc6 bxc6. I would wish him good luck convincing Stockfish of that, who steadfastly gives 0.00, but that was less of a problem in 1938!

1...exd5

Alekhine correctly assesses this position as very good for White, but doesn't actually commit to which move he thinks is best, proposing several possible ideas.

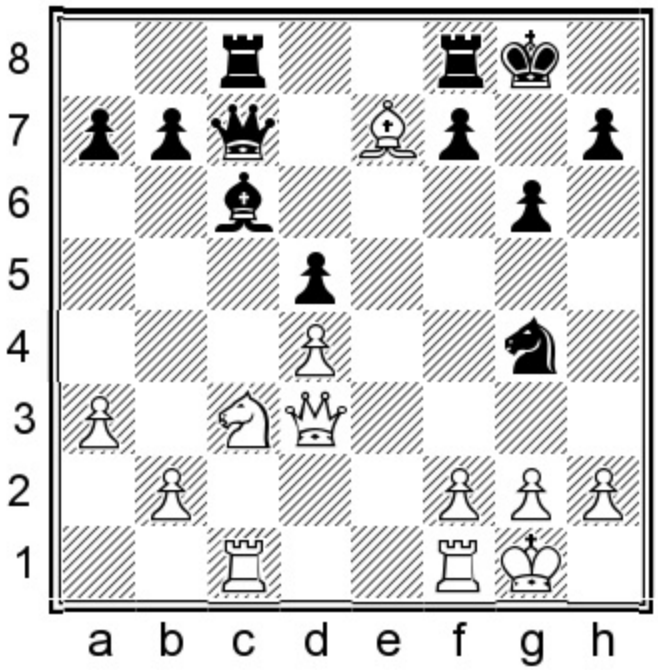
Alekhine mentions 1...♗xd5? as being "no good", without giving details. No doubt he had seen the simple variation 2.♗xf6 ♗xf6 3.♘xd5 exd5 4.♘d7, winning the exchange.

1...♘xd5? is also accurately described as "no good"; indeed, 2.♘xd5 ♗xd5 3.♗xe7 wins a piece for White.

2.♖fe1!

This natural move is the most convincing path to a decisive advantage.

2.♘g4? is a mistake due to: 2...♘xg4! 3.♗xe7 ♕c7!



White can avoid the loss of a piece with 4.♕h3, but 4...♕xe7 5.♕xg4 ♖ce8 is only equal.

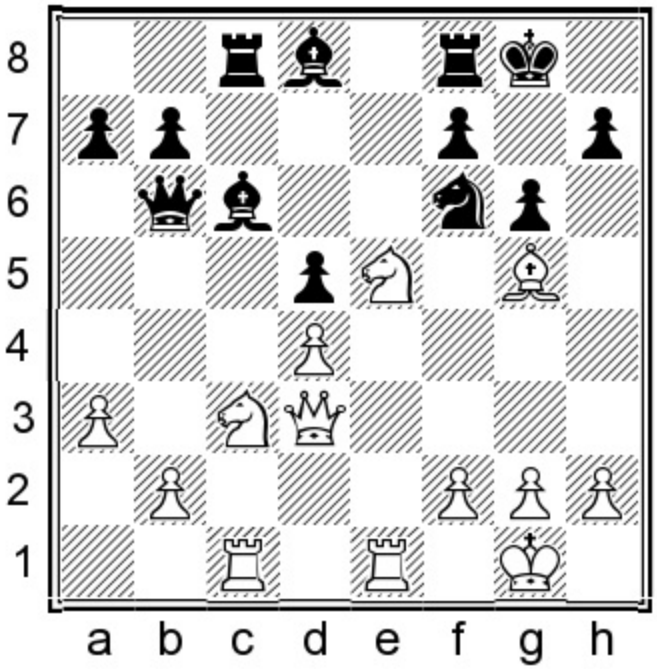
2.♕f3 ♕d8 3.♖fe1 is an alternative winning continuation though, one important point being that 3...♘e4 4.♗h6 wins the exchange.

Alekhine also mentioned 2.♘xc6 bxc6 3.♖fe1 but this seems less impressive. True, White retains

some initiative, but it feels too early to trade off Black's passive bishop.

2...♗d8

2...♕xb2 3.♕f3 ♔g7 4.♘d1 ♕xd4 5.♘xc6 ♖xc6 6.♖xe7 wins a piece.



3.b4!

White keeps increasing the pressure.

3...a6

3...♔g7 4.b5 ♗e8 5.♕h3 threatens ♗h6† in addition to the rook on c8.

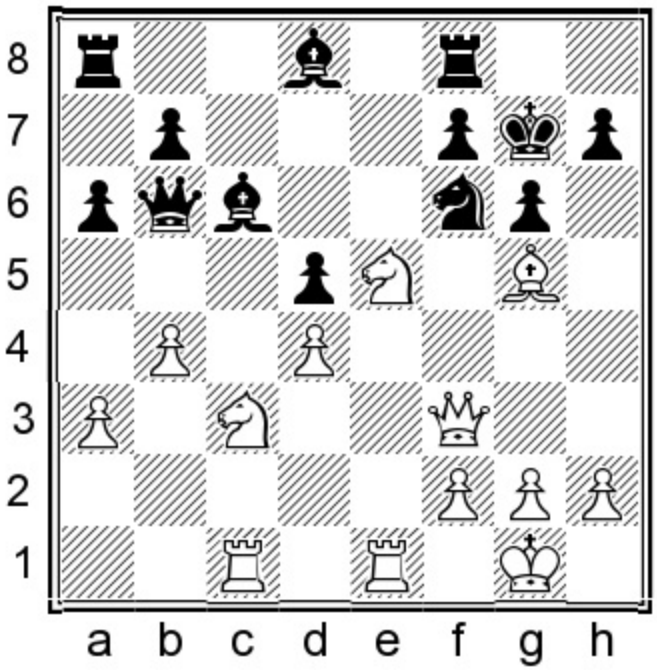
After the text move White has several promising options, but one good way to force matters is:

4.♕h3 ♖a8

The rook has to give ground, as the natural 4...♖c7 runs into 5.♕h4!, creating serious problems due to the fact that the bishop on d8 is undefended.
4...♕c7 5.♗xf6 ♗xf6 6.♘xd5 also wins.

5.♕f3 ♔g7

Now there is a rather flashy combination available:



6.♗xf6† ♗xf6 7.♕xf6†! ♔xf6 8.♘d7†

8.♘xd5† ♗xd5 9.♘d7† ♔g7 10.♘xb6 ♖ad8 is less impressive.

8...♗xd7 9.♘xd5† ♔g7 10.♘xb6 ♖ad8 11.d5

White should win the endgame.

When de Groot conducted his famous research back in the 1940s, chess engines did not exist and the Elo rating system had not yet been developed. Thus it was impossible for de Groot to derive any mathematical relationship between a player's strength and many of the other variables he measured during the puzzle-solving experiments.

More than eighty years after de Groot's first experiments, I have revisited his methodology, aided by Stockfish, a chess engine of superhuman ability, and Minitab, an advanced statistical software tool. Using new, previously unpublished chess puzzles, I have tried to finally uncover the exact differences between players of varying strengths.
As I write this introduction now, in my apartment in Birmingham, having already conducted the full statistical analysis on the results from all the puzzles, I am excited to announce that the information I am about to disclose in this book will be of groundbreaking significance. It may forever change the way you think about top Grandmasters, and the way they choose their next move. Never before in the history of chess has anybody been able to unravel the mysteries behind the thinking process of a Super-Grandmaster, and accurately determine the differences between their chess thinking and ours.

I hope you enjoy the book.

Philip Hurtado
Birmingham, December 2021

Chapter 1.2

Introduction by Michael Adams

I didn't know Phil before he sent an email via my website, enquiring if I would be interested in collaborating on a book. Having been intrigued by his idea, we had a long chat on the phone, and I was excited to join the project. Part of the initial appeal for me was that working with a co-author seemed less daunting than taking on an entire book project personally, but subsequently I became so interested in the subject that my input expanded considerably.

I was attracted to the book's concept for a few reasons, such as the fact that the majority of the test positions to be solved in the book were chosen by Phil. I thought these examples would be more useful for most readers, as opposed to material that a stronger player would themselves judge instructive. I felt this aspect important, as when talking socially with lower-rated players about my games, or theirs, I am frequently surprised – both by the, to me, difficult concepts that they understand, and by other areas where their understanding seems surprisingly lacking from my point of view. There are lots of books where GMs give their views on what they think other players need to know, but these may not always ask the questions people want answered.

An additional attraction of this project was the way in which the puzzles were recorded, where you can observe participants' thinking in real time, as they give their opinions, judgements and calculations about the position. I found these highly revealing, and subsequently enjoyed spending time reflecting on many of these comments.

Phil's distinguished academic career contrasts rather with mine. I headed off to the World Junior Championships in Australia in 1988, after doing my exams at sixteen. Professional chess seemed a lot more appealing than heading back to school, and I never really returned to my studies. Despite our different educational backgrounds and playing strengths, there was quite a bit of overlap in the key themes that Phil and I identified when analysing the results. (We initially wrote those sections independently, and only later compared our thoughts.)

I am particularly happy that after a lot of calculation, Phil has supplied an answer, albeit with some

caveats, to the tricky question “How many moves ahead can a Grandmaster see?” If I had a pound for every time I have been asked this question I would have retired long ago – although as I’ve never had the slightest idea about even a ballpark answer until now, perhaps justice was done.
To bring the project to a conclusion, I expanded considerably on the written material, reviewed the eyetracker footage and carried out final editing on most of the book. Phil spent a lot of time on his main responsibilities: fine-tuning the scoring system; compiling and analysing the puzzle data; and crunching the numbers to draw conclusions, such as to the question noted above. We both added a lot of content to sections that are not attributed to a main author.

Earlier on in the process, I had suggested the idea of introducing the extra variable of monitoring participants’ eye movements as they solved the puzzles. Phil also found the idea interesting, and he was able to set up an appropriate experiment. This was a fascinating day to take part in, as, in addition to analysing my own results and those of others, it was intriguing to observe others thinking in real time. It was also absorbing to inspect the areas of the board that other players spent a long time focusing on.

I solved the puzzles in June 2019 and, in my next event a month later, won the British Championship for the seventh time. I hope this book will help you towards similarly satisfying results in the future.

Michael Adams
Taunton, December 2021

Chapter 1.3

Methodology & Data Analysis

by Philip Hurtado

Although De Groot's work certainly served as an inspiration for writing this book, the approach I have used for collecting data and determining differences in thinking between a Super-GM and lower-rated players has been radically different.

De Groot focused on the cognitive requirements and thought process involved in selecting a move, and in doing so, discovered that a chess player's cogitations go through four distinct stages prior to making their move. Namely:

* The 'orientation phase', in which the player assesses the situation and forms a general idea of what to do next.
* The 'exploration phase', when the player looks into the possible variations and lines.
* The 'investigation phase', in which the player chooses the best move.
* And finally the 'proof phase', where the player confirms that the results of the investigation are valid.

In my experimental design, I focused primarily on numerical data which could be analysed, such as:

* **Time taken to make a move**
* **Time taken to spot the best move** (not including time spent checking it, as per the 'proof phase' above)
* **Evaluation of the position** (in the familiar plus or minus numerical style of most analysis engines)

I wanted to determine mathematically if there were any significant statistical differences in the above metrics between players of various levels. Would there be any demonstrable correlations between these metrics and a player's FIDE rating?

Statistical Analysis

Without getting too technical, it is worth explaining what a *statistically significant difference* means, as this concept is fundamental for understanding the methodology used in this experiment.

At the same time, you do not have to read the following section to start using this book. I have included it for the benefit of those readers who are curious about the topic. If, on the other hand, you just want to get on with the main topic of the chess content, then feel free to skip the next few pages.

Suppose I wanted to compare the evaluation ability of Super-GM Michael Adams with that of my friend Andrew McCumiskey, an experienced club player with an Elo rating just above 2000. Using Stockfish's evaluation as a reference point, I found that Michael evaluated the test positions with an average accuracy of plus or minus 0.34 away from Stockfish, whereas Andrew evaluated the exact same positions with an average accuracy of 1.05 away from the machine. How do I know that these differences are meaningful, and not simply due to Michael Adams having a good day and Andrew McCumiskey having a bad day?

Well, the solution to this problem is not at all trivial. You see, humans have been able to calculate the average of things and compare them to each other for thousands of years – ancient Greek and ancient Egyptian mathematicians are among those who are known to have done so. But knowing whether or not these statistical averages are *significant* or not – i.e. whether the result is due to a real difference as opposed to the randomness of nature – was not fully understood until 1935, when British statistician Sir Ronald Fisher published the first edition of the book *The Design of Experiments*, in which he introduced for the first time the concept of the null hypothesis, and explained the rationale for using significance tests and probability in order to properly analyse the results from an experiment.

The Tea-Tasting Lady

One of the first, and probably still the most famous example on how to use the null hypothesis to determine the validity of the results from an experiment, is the funny yet brilliant "Lady Tasting Tea" experiment, which was conducted by Ronald Fisher himself and subsequently reported in the aforementioned book in 1935. I will recount it here, as it is one of my favourite stories in statistics and I find it fascinating.

The lady in question was Miss Muriel Bristol, a PhD researcher who worked closely with Ronald Fisher in the same agricultural research facility in Hertfordshire, England. One day Fisher brought tea

to Miss Muriel, who refused the tea after tasting it because she said he had poured the milk in the cup before the tea. Fisher argued that there was no difference in taste caused by pouring the milk before or after. Miss Muriel disagreed.

To settle the matter, Fisher devised an experiment that would conclusively prove whether or not Miss Muriel could taste the difference. After some calculations, he determined that eight cups of tea (four with milk poured in before, and the other four with the milk poured after) would be enough for the test. With this many cups, Fischer calculated that the probability of a person *without* the tasting ability correctly identifying all four of the 'wrong' cups by guesswork alone was only 1/70, or 1.4%.
As it happened, Miss Muriel was right. She correctly identified all four of the cups in which Fisher had poured the milk into the cup before adding the tea. Fisher acknowledged defeat, as he knew that there was only a 1.4% chance that Miss Muriel could have achieved that result by guesswork. To put it another way, in layman's terms, there was a 98.6% chance that she really could taste the difference as she claimed.

I hope you enjoyed the story. The important lesson here is that Fisher introduced for the first time the concept of using probability to determine whether or not the results of an experiment are statistically significant. This probability of the results happening by chance is known in statistics as the *p-value*. Ronald Fisher postulated that for a statistical test to be *significant*, the p-value would have to be lower than 5%. In the case of the Lady Tasting Tea, the p-value was 1.4%.

Going back to our original question regarding the accuracy which with GM Michael Adams and club player Andrew McCumiskey can evaluate a position: what was the p-value, you may wonder?

The p-value of the data in our Adams – McCumiskey experiment is 2.4%. In other words, there is only a 2.4% chance that such a difference in performance could have come about by random chance, or by one player having a good day and the other a bad day. Sorry Andrew – if it's any consolation, my own results were about the same.

Calculating p-values is not easy – they would take months to calculate by hand, and it is only thanks to advanced statistical software that these values can now be automatically calculated. Without going into details, I will just mention that p-values depend a lot on the sample size and the variability of the results. Which brings us to our next section.

Sample Size

In the same way as Ronald Fisher determined he needed eight cups of tea to prove to the desired level of certainty if Miss Muriel could taste the difference in tea, I needed to determine how many puzzles and how many participants I would need in order to draw meaningful conclusions from the data I intended to analyse. By running a few simulations on the computer, I discovered that I needed at least twenty puzzles and twenty participants. Moreover, the playing strength of the participants would have be normally distributed from absolute amateur (Elo 1000) to Super-Grandmaster (Elo 2700).

To be on the safe side, I decided to go overboard on the sample size. I doubled the number of puzzles to forty, and gathered data from nearly fifty participants, from whom I managed to collect a total of 1,100 commentaries over the course of nine months.

At this point it is worth mentioning that at the end of the experiment, Michael and I decided to replace ten of the original puzzles with ten puzzles of equivalent difficulty taken from Michael's own games, as we thought it would be appropriate to include some real-life examples from the Super-GM himself. Statistical data for these ten puzzles of Michael were also taken and added to the study.

Methodology

From the onset of the experiment I was not sure what my findings would be, so I simply set out to record as much data as I could. Each participant was invited to solve all forty puzzles, using as much time as they needed for each puzzle.
Participants were asked to talk through their thought processes before deciding on a move and giving their evaluation of the position. I noted down all the commentary, along with the total thinking time at the end of each comment. I finally recorded their chosen move and estimated evaluation, which would be measured for accuracy using the evaluation of Stockfish as a reference point.

It is worth mentioning that, in order to keep the book manageable in size, only a small minority of the commented solutions were selected for inclusion in the book. In the solution section for each puzzle, we generally included roughly four to six of the most interesting and instructive commented solutions from a range of participants, showing the differences in thought processes between players of varying playing strengths.

Data Analysis

After gathering the necessary data, I ran various statistical analyses on the computer to look for significant differences between players of different levels. I noticed that there were no significant differences whatsoever between players of similar rating. But I quickly found out that there were clear statistical differences approximately every 200 Elo points. So for the analysis I grouped the participants in tranches of 200 Elo points (1600-1800, 1800-2000, etc.) and ran new tests comparing the metrics of these groups.

One particularly revealing set of tests was the correlation tests, demonstrating a clear linear relationship between a player's Elo rating and the time needed to find the best move, as well as the same relationship between playing strength and evaluation skills.

As I continued number-crunching the data on the computer, additional interesting findings were fortuitously discovered. For example, I discovered that there is a clear correlation between a player's strength and the depth at which he or she is able to accurately calculate. I was also especially

interested in the time it took players of different rating levels to *find* the correct move, and then comparing this to the time it took them to *finalize their decision* to play the move. It came as a surprise to me that stronger players actually spend more time finalizing their decision than they spend finding the best move in the first place. All these findings will be summarized in graph or table format and discussed in more detail towards the end of the book.

Chapter 1.4

What is a Super-GM?

FIDE (Fédération Internationale des Échecs) has not yet issued an official title of Super-Grandmaster. However, among the chess public, Super-Grandmaster is used as an unofficial title to distinguish the very top players – usually those with an Elo rating of 2700 or above.

About the Elo rating system

Almost all chess players are familiar with the term "Elo rating" and we will certainly see a lot more of it in this book – but it's worth saying a few words about what this number actually signifies.

The Elo rating system, which is used by FIDE to rate all chess players, was first introduced in 1960 by Arpad Elo, a Hungarian-American chess master and physics professor. The mathematical model he devised is so beautiful and effective that it has been widely adopted for rating other games and applications. Some other examples that use the Elo rating system are the FIFA World Rankings and the Universal Tennis Rankings. It was even used by Mark Zuckerberg to rank the popularity of female Harvard students in the early days of Facebook – and it is used today by Tinder to rank and match user profiles.

The Elo rating system in chess is based on the probabilistic outcome of a game played between players of different strengths. The bigger the difference in Elo rating, the greater the expected percentage score of the higher-rated player. For example, a rating gap of 100 points equates to an expected score of 64% for the stronger player. If the rating gap is 200 points, the expected score of the stronger player increases to 76%.

Obviously the probability in any individual game will be affected by which player has the white or black pieces, so the above figures are merely a broad average. Another interesting feature is that the drawing percentage increases in line with ratings. For example, when the players are rated 1700 and 1800, the probability of a draw is 22%. For players rated 2500 and 2600, the draw probability increases to 42%. We could spend many pages analysing this and other statistical data relating to Elo,

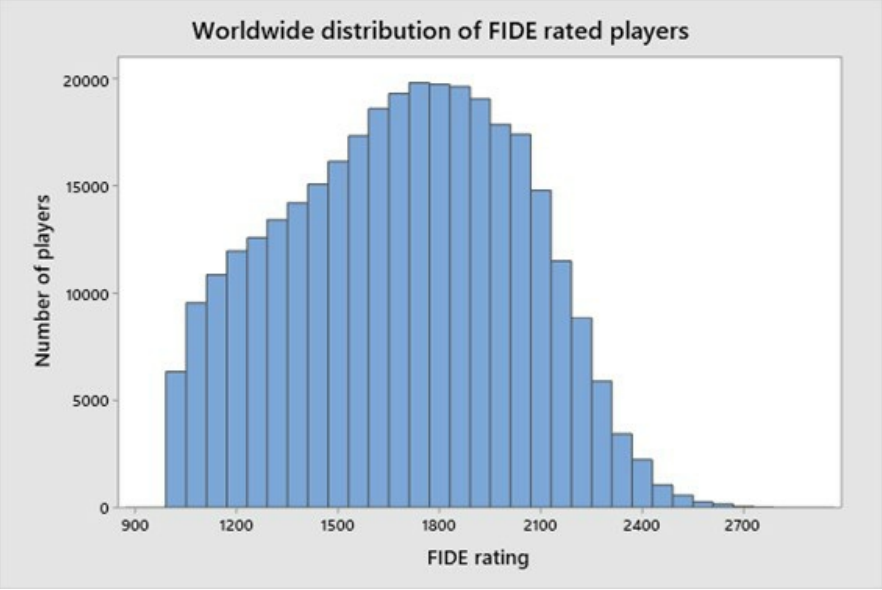
but to do so would take us a bit far off-topic.

I will, however, leave you with one last observation that I took from the probability tables: a player with a GM-calibre rating of 2500 only has an 8% probability of defeating a Super-GM with a rating of 2700.

The difference between GM and Super-GM

The requirements to become a Grandmaster are for the player to attain a 2500 Elo rating along with three 'GM norms', each of which requires an Elo performance of 2600 or above. As of July 2021, out of the 367,397 players alive and registered by FIDE, there are only 1,730 GMs, accounting for just 0.47% of all rated players. Clearly, becoming a Grandmaster is, in itself, a mammoth accomplishment.

As mentioned earlier, the informal title of Super-Grandmaster is generally reserved for those who attain an Elo rating of 2700 or above. This is a feat attained by just thirty-eight players on the current rating list: that is just 0.01% of all rated players worldwide. For a visual representation of how extraordinary it is to become a Super-GM, look at the worldwide distribution of chess players below, and see how few individuals are capable of playing at or above the 2700 level.



Histogram showing number of players in each rating category. The average chess player has a rating of 1750 Elo points. A Super-Grandmaster has a rating of 2700.

The featured Super-Grandmaster in this book is co-author Michael Adams. Michael became a grandmaster in 1989 at the age of seventeen, and he has been consistently rated above 2700 level for over twenty years. (His rating dropped below 2700 for short periods in 2009 and 2019/20, but these were brief blips in a long career playing at the highest level.)

Michael was ranked fourth in the world in several rating lists from 2000 to 2002, and he attained a

peak Elo rating of 2761 in both 2013 and 2017. He reached the final of the FIDE World Championship knockout in 2004, eventually losing in a rapid tie-break. In short, Michael has achieved almost everything there is to achieve in chess, short of becoming World Champion – and he has been competing at this elite level for more than two decades.

Chapter 1.5

How to Use this Book

by Philip Hurtado

This book contains forty challenging puzzles for you to solve and monitor your own score. In addition, there are eight bonus puzzles and seven further non-scoring puzzles in the Eyetracker chapter.

These are chess positions which you should set up using a real board and pieces, and imagine you are playing a competitive game against a tough opponent. The instructions are simply to select the best possible move you can, and give an evaluation of the resulting position.

For each of the forty main puzzles, you will score a maximum of ten points if you find the best move, and an additional three points if you give the correct evaluation as well. You need to find the best move in order to be eligible for any bonus assessment points. The full scoring system for each puzzle will be presented at the end of the solution section for that puzzle.

Time to solve a puzzle

There is no set time limit per puzzle. However, to mimic tournament playing conditions, we suggest that you aim to solve each puzzle in fifteen minutes or less. You can certainly use a bit more time in some of the more complicated puzzles if you feel it is necessary, as you would in a tournament game. Our panel of solvers spent an average of eight minutes per puzzle, although some will be solved quite quickly while others encourage deeper thought.

Puzzle difficulty

The puzzles have varying degrees of difficulty, which we have assessed on a scale with 1 being easiest and 10 being hardest. The average difficulty level of the forty main puzzles is 7.

When and how should I check my solutions?

We recommend checking the solution for each puzzle soon after solving it, as you will gain the most value from the thoughts of others, plus the analysis and comments on that position directly afterwards, when your own ideas are fresh in your mind. It is important to remember that **the solution section of this book is completely different from most puzzle books**. In an ordinary puzzle book, each solution will contain a few key variations and comments. In this book, the solution for each puzzle starts by recapping the thought processes of several players from the panel of solvers, before moving on to the model solution with detailed commentary from Michael, followed by concluding comments from both authors.

How many puzzles should I solve in succession?

If this was a normal puzzle book, we would recommend solving five, ten or possibly more puzzles in one sitting before checking the solutions. However, in this book the solution section is packed with a lot more content than you would normally expect. Here you will be able to compare your thought processes with those of a range of other players who solved the same puzzle, before seeing Michael's detailed analysis and comments – but you will need to have enough energy and alertness to take all this in.

It's up to you how many puzzles you solve in each sitting, but our main piece of advice is to **avoid solving to the point of exhaustion**, as in that case you will fail to get the most out of the solutions: you will either be too tired to follow the thought processes of the other solvers, or you will have to take a decent break before checking the solutions, by which time your own thoughts about each puzzle will not be as fresh in your mind.

To begin, you may wish to solve just one or two puzzles and then check the solutions before going any further. That way, you will get a sense of what you can expect from the solution section in order to gauge how many puzzles and solutions you will be able to manage per session.

Do I score points even if I don't find the best move?

Yes. Each puzzle solution has a unique scoring system. The maximum number of points you can get for solving a puzzle correctly is ten points. However, in most puzzles you will still earn a certain number of points for the second or third best move, depending on the position.

Why is the minimum score set at 1 point?

You may notice in the solutions that even weak moves are still awarded a single point. Why is this? First, it solves the problem of not having to enumerate the whole list of moves that have a similarly

low value. And secondly, it conveniently helps us align each player's performance to the current Elo rating system. Note that the Elo system generally starts at 1000, rather than at 0. In other words, if a player fails to get a single puzzle correct, that player will still end up with a points total in line with a beginner-level 1000 Elo rating.

How do the evaluation points work?

Once you have decided upon a move, you should assess the resulting position and settle on an evaluation. A player can score up to three bonus points if, after having chosen the best move, they have also evaluated the position correctly by giving an assessment close to that of the chess engine. Most readers will already be familiar with the way that computer engines evaluate positions, having got used to consulting the electronic oracle about their own games. Some, however, might not be so accustomed to working with computers, and with how to express a position in the same numerical terms as modern chess engines do. In that case, in order to give your assessments on the positions, the guidance below will help you to translate your views on the position into a numerical assessment. There is a range built into the scoring system, so absolute precision is not required.

Computer numerical evaluation	**Human evaluation**
Between –0.09 and +0.09	The position is equal or drawn.
Between +0.1 and +0.29	More pleasant for White, but nothing too serious yet.
Between +0.30 and +0.59	White is slightly better; or White is a pawn up, but Black has some compensation.
Between +0.6 and +0.89	White is significantly better.
Between +0.9 and +1.39	White has a significant to large advantage, but not necessarily decisive yet.
Between +1.4 and +2.49	White has a substantial, probably winning advantage.
More than +2.5	White is clearly winning.

You will use the same evaluation criteria, but with a minus sign, for describing an advantage to Black.

You can score between one and three bonus points according to how closely your evaluation matches that of the engine. Full details will be given in the score table at the end of the solution for each puzzle. There are no evaluation points if you totally misjudged the position.

It is worth repeating that the evaluation points only apply if you have played the best move highlighted in bold, on the puzzle solutions page. **You cannot award yourself evaluation points if you did not select the best move.**

How were the computer assessments arrived at?

Some of you may investigate the puzzle positions with your own versions of Stockfish and/or other engines. Depending on many variables, you may well get slightly different assessments to mine. The power of your computer, the amount of thinking time you allow it, the depth of moves considered, the version of Stockfish used and various ways of tweaking the program settings are just some of the factors that can affect things. However, I believe any differences in evaluation will be relatively minor, and definitely should not change the assessment as regards to which move is the best.

After several tests, I decided to use a consistent methodology, which gave an accurate and stable evaluation after running all the positions on my computer for a long time. For the evaluation of all the puzzles in the book, I have used the numbers provided by **Stockfish 10+ WASM** at the publicly available website Lichess.org, running at the default depth of 23 half moves deep and 5 best continuations, and then corroborating the results at a much greater depth of 45 moves on my own machine. In the event of a discrepancy in evaluation, the average of both evaluations was taken, where that was appropriate.

All the chess puzzles in this book have been solved by Michael, in my presence – and thanks to the data collected, we have been able to gain new insights into his thought process. Analysing the metrics of Michael's puzzle-solving performance sheds new light on the mystery of what makes Super-GMs such outstanding players. You will now be able to solve the puzzles yourself, before comparing your answers with his and discovering some of the secrets of Super-GM thinking.

Chapter 1.6

Tips for Solving the Puzzles

by Michael Adams

How to score well and gain maximum benefit from the puzzles

1. Some of these puzzles are challenging, and will be especially difficult as you are coming to the position cold, and can't follow the thread of your thinking as during a game. In this situation it is often not easy to immediately get to full concentration levels, so try to take some time to orientate yourself.

2. One of the biggest and most common mistakes is to fail to notice a move in the starting position, or reject one too swiftly, or to forget about a promising candidate move you previously considered in a fog of variations. In most of the puzzles that I failed badly on, I was guilty of one or the other. It is a common failing in chess players to get carried away with calculating long lines, while totally missing a stronger possibility available on the first move or two. As Bent Larsen once said: "Long variation, wrong variation."

3. Looking for a puzzle-like solution won't always be the correct approach, so try to consider each position normally as you would in a game.

4. When you have identified the best move, bear in mind that finding the best reply will be crucial in accurately giving an assessment of the position. Stronger players often outperform by getting the full picture on the board by being more aware of their opponent's resources.

5. Perseverance will often pay dividends. I and other GMs took much longer than you might expect to come up with the answers to some relatively simple puzzles – but by soldiering on, we arrived at the correct solution to those positions in the end. Trust your intuition, and don't give up on your instinctive ideas without serious thought.

6. To score points, only the first move and assessment are required, but the stronger players nearly

always gave a more detailed, concrete line of best play to justify their judgement. Trying to do this yourself will certainly prove rewarding, and you will be able to compare your thoughts to other solvers in the answers. The deeper you dive into a position, the stronger you will become.
After Phil had tested me on several of his own games, I was able to return the favour. So you will be able to see if you can match, and perhaps exceed, my performance in those positions. Sadly, yet again I didn't get everything right, either over the board personally, or when solving Phil's puzzles.

Good luck!

Part II

Puzzle Section

Chapter 2.1

Solver Biographies

by Philip Hurtado

Before moving on to the solutions, I would like to give a few more details about the solvers featured in the book. They are arranged in descending order of Elo rating (apart from the final four, who are grouped together due to being from the same school).

GM Michael Adams – Elo 2701
The English gentleman of chess, Michael was a World Championship finalist in Tripoli in 2004, and has been a World Championship Candidate several times. He has won the British Championship seven times, and was ranked number four in the world at his peak.

The first time I saw Mickey playing live was in the early 1990s, at a weekend rapidplay in London. It was a pleasure to see him play. Many of the amateurs competing would finish their games early, just to go and watch him play on first board, from where he would never move. Because of his style of play, his moves were unfathomable to us. There were no direct blows, so amateurs never knew what was going on until the very end, when suddenly, at some point later in the game, his opponent's position collapsed like a house of cards. Now, thirty years later, I have the opportunity to find out how he did it!

GM Julio Granda Zuniga – Elo 2630
Julio was born in Camana, a historic town conquered by the Spanish in 1539, situated on the South Pacific coast of Peru. He was brought up on a farm, where his father taught him chess at the age of five using an old book series written by Argentinean master Roberto Grau. Julio is considered an

incredible natural talent, since it took him many years to begin using modern computers to study chess – long after his rivals were using them extensively. He has won the American Continental Championship five times, and was World Senior (age 50+) Champion in 2017.

After many years living in Spain, and playing actively, Julio has returned to his roots in Camana. He has bought his own farm where he rears free-range chickens, as well as growing his own organic orchards of apricots, plums, peaches and other stone fruits.

GM Eduardo Iturrizaga – Elo 2607
Born in Caracas, Venezuela in 1989, Eduardo became a grandmaster in 2008, the first Venezuelan to achieve the title. He scored an amazing 97% in the puzzle tests.

GM Renier Vazquez – Elo 2551
Renier moved from Cuba to Madrid where he arrived empty-handed, with no material possessions whatsoever. But his head was packed with the highly valued training methods used at the Cuban school of chess. Cuba has produced one of the highest number of grandmasters per capita in the world; forty-three Grandmasters from a population of only 11 million. In Cuba, talented players are scouted to join the famed high performance schools for chess and sports. When Renier arrived in Madrid he joined our chess club in Collado Villalba, where he coached the first team, helping us gain promotion to the top division of the Madrid League, and eventually to win it six years in a row!

IM Juan Reyes – Elo 2451
Juan is an International Master from Peru. I first met him more than twenty years ago in Madrid, where he gave me and a friend private chess lessons. It was thanks to those training sessions that I reached my peak Elo rating of 2112.

GM Keith Arkell – Elo 2429
A highly likeable, sociable Grandmaster, with superb intuition and endgame technique, Keith has won countless weekend tournaments in the UK. He was English Champion in 2008, losing a playoff for the British Championship after sharing first with Stuart Conquest. Other personal highlights, showing how he has maintained his playing strength over a long and successful career, were winning the European Senior (age 50+) Championship in 2014, and sharing first (placing second on tiebreak) in the World Senior (50+) event in the same year.

Keith's great endgame technique comes out to shine when you play him in blitz. When we played in a pub, after the eyetracker puzzle solving, Keith won five consecutive games against me giving time odds of three minutes to one. That's how quick he is!

IM Harriet Hunt – Elo 2414
Harriet is an International Master (as well as Women's Grandmaster), and has won the British Women's Championship five times. She made her debut for the English women's team at the age of sixteen, and has achieved excellent results for the team, including the best performance on Board 1 at the European Women's Team Championship at Batumi 1999.

Harriet's academic career, where she is a research associate at the McDonald Institute of

Archaeological Research at Cambridge University, has limited the amount of chess she has played in recent years. However, she was back in fine form when representing England again at the FIDE Online Olympiad in 2020.

Anonymous – Elo 2305
A professional who works in the finance industry and plays chess as a hobby, this individual wishes to remain anonymous. During his university years he reached a rating close to 2400, yet has never registered for the FIDE Master title. I can confirm that he is capable of analysing chess well above the level of his current rating, which was demonstrated by his impressive scores in the puzzles.

Sebastian Reyes – Elo 2272
Sebastian is the nephew of IM Juan Reyes. Juan told me I should test the puzzles with Sebastian, who was then champion of Madrid in his age category. He was 100 Elo points lower when he did the puzzles last year, and I expect his rating will continue to climb with his uncle's support.

FM Akshaya Kalaiyalahan – Elo 2149
By the age of eighteen, Akshaya had already won the British Women's Chess Championship twice, as well as representing England at two Olympiads. An intelligent thinker with an instinctive understanding of chess, she is currently studying law at Oxford.

WFM Louise Head – Elo 2090
Louise was a top scorer in our team when playing for Solihull Chess Club. She won the English Women's Chess Championship in 2017 and 2019, and was a member of the English Women's team at the 2018 Chess Olympiad. Louise is currently doing a PhD in Physics at the University of Edinburgh, one of the UK's most prestigious universities. As I write these biographies, I am beginning to realize there may be a correlation between playing chess and making it to an elite university.

Jesús Cao – Elo 2060
There are people you meet in life who, for very distinct reasons, you immediately trust and admire. Jesús was one of them. I met him for the first time when I joined a chess club in Madrid in the late 1990s. He had a handsome appearance, white hair, glasses, and always wore a nicely fitting suit and tie. Apart from being President of our club, he was a permanent member of the Board of the Bank of Spain, and you could feel the confidence and tranquillity that made him an ideal fit for such a senior position.

Jesús has always been very kind to chess. He has generously contributed to all the chess clubs he has presided over, and has helped many foreign players from Latin America to settle in Madrid, offering them classes, simuls, and in some cases, personal financial help.

Andrew McCumiskey – Elo 2017
A great, intelligent guy, Andrew was one the first participants in the puzzle experiments. We played together at Solihull Chess Club in the first division, the year our club won the Birmingham and

District Chess League. Andrew works as an IT Consultant, specializing in Automotive, and is married with four sons. He learned chess at the age of eleven and has played regularly for over forty years. He rarely studies openings, but relishes long subtle endgames. He is a great believer that chess helps with both concentration levels and decision-making in the wider world.

Nathanael Paul – Elo 1993
Nathanael is a talented club player with great fighting spirit, who won't concede a draw until only kings are left on the board. I was impressed with his determination when we played at the 4NCL, the game ending in a combative draw.

Philip Hurtado – Elo 1924
I was born in Brighton, England, but then moved to Madrid at the age of four. I became fascinated with chess when I read William Hartston's book on chess openings, and recall how accurately he described the way in which beginners bring out their queen too early – exactly as I used to do as a teenager when playing against my uncle Rufino at his restaurant in New York.

Taran Jina – Elo 1912
Taran first started playing aged six, and went on to represent England in several junior team events across Europe. An excellent student, he went to Warwick University to study Mathematics, where he is the president of the university's Chess Society. Away from the board, he is keen fan of football and cricket, playing both in his free time.

Tony Sadler – Elo 1893
Tony was the first person I played when I joined my local chess club. He has been a stalwart member of Solihull Chess Club in the Birmingham and Leamington League for many years. After he lost to me in a friendly game, he generously recommended that I should play a board above him in the team.

Francisco Marcos – Elo 1842
Paco, which is the hypocorism of Francisco, is a FIDE arbiter. He graduated in Computer Science at the Polytechnic University of Madrid, and worked many years as an IT consultant for the Spanish Ministry of Defence. His two passions are chess and cryptocurrencies. Paco was one of the early bitcoin miners in Spain using ASIC computers, and has second-to-none knowledge in this field.

Raymond Carpenter – Elo 1767
Raymond is one of the founders of the Solihull Chess Club, and captain of the first team who won the Birmingham Chess League. Due to Covid restrictions, Ray still has the cup at his home. Ray is a very likeable person, as well as a tough competitor over the board.

Agnieszka Milewska – Elo 1677
Aga is a chess teacher and coordinator at the Chess in Schools and Communities Charity, as well as an International Arbiter. She is also now an ECF Director of Women's Chess. A hard-working single mother, and a good trustworthy friend whom you can speak openly to.

A word of warning: Aga's rating seems to increase when she drinks vodka, as I discovered when

I played some blitz games against her at the Royal Automobile Club in London after having dinner with some friends.

Jorge Granell – Elo 1673
Jorge is the President of the "El Ocho" chess club, a club which I used to play for in Valencia, Spain. A lovely person with a passion for chess, he is always looking for ways to promote chess in schools and nurture new talents. In Jorge's own words:

"I am grateful to Philip for letting me participate in this book. I also want to encourage the readers to inspire youngsters to take up chess as a learning tool that helps us think strategically throughout life."

John Green – Elo 1563
John is the President of Solihull Chess Club and a former police officer, as well as a loyal friend. Highly inquisitive, he is always looking at ways of promoting chess locally, and recruiting younger people to play the game. Every time I speak to him on the phone, he prompts me to ask Michael if he wants to join Solihull Chess Club!

Fermin Rodriguez – Elo 1544
Fermin is a good friend of mine. I met him for the first time when I was seventeen, at the very first chess tournament I played in – we were both young then! Fermin was carrying a book on pawn endings by Ilya Maizelis, which I'm not sure he ever actually read, and he gave it to me in an act of friendship and generosity. Fermin has a prodigious memory, and has tons of chess-related stories he can recount in great detail. One memorable tale involves his loss against Spassky at the Oviedo tournament in 1991, where Spassky beat him playing the Hippopotamus Defence in 23 moves. Fermin's great memory may have been a mixed blessing for his chess, as practically all of his study has centred on opening theory. He plays the first dozen or so moves like a Grandmaster, the middlegame like an amateur and the endgame... well, I don't think he has won an endgame in years.

Penny Wood – Elo 1443
Penny plays at my chess club in Solihull. I asked her to say something about herself for the book: "Married, two daughters, four grandchildren. Admin officer in local prison for two decades; can't wait to retire. Likes fine chocolate, good coffee and reading in cafes. Involved for many years in the lower echelons of club play."

She then wittily added: "Once drew with Bill Hartston, but I think he was being polite."

Leo Hurtado – Elo 1345
My beloved son. Leo has only ever played in one tournament: the FIDE World Amateur Chess Championship in Cagliari, Italy. Chess is not a particular passion of Leo's, but he enjoys playing casual games against his friends or cousins. He is nineteen years old, and is studying Computer Science and Artificial Intelligence at university.

Oscar – Elo 985

Osky was my first chess student when I migrated from Spain back to England in 2016. He is eight years old, and has now graduated to work with stronger coaches. I would be surprised if he doesn't win one of the junior sections at the British Championships in the coming years.

Victor – unrated
I don't know why, but I've somehow always been privileged in meeting extraordinarily intelligent people. This thirteen-year-old chap of Russian origin has the deep, penetrating, inquisitive eyes of a genius. I had the pleasure of teaching him and his siblings how to play chess.

Theo – unrated
Oh Theo! A dancer, a poet, a connoisseur – and he is only eight! Theo is class. One of my favourite moments during our chess lessons was when tea and freshly baked biscuits were served. If you ever have afternoon tea with Theo, you will know the difference between eating and savouring!

Alex O'Loghlen – unrated
Alex was born in Cape Town on December 1st, 2008, and now lives with his family in Dublin, Ireland. He first started playing chess at the age of five, taught by his dad. He enjoys playing against his grandfather. Apart from chess, Alex enjoys spending time with his friends, playing guitar and rugby.

My distinguished co-author is a Chess Ambassador for the Stephens and George Charitable Trust based in Merthyr Tydfil. In the summer of 2019 we both visited Caedraw Primary School where Michael played a simul, and I tested the players below on some of the puzzles.

Anshul Swamy – Elo 1300
Anshul was introduced to the game at St Mary's Primary School at the age of seven, and reached the Mega Finals of the Delancey UK Chess Challenge that same year. He has enjoyed repeated success in that competition, qualifying for successive Giga Final stages every year thereafter. Now aged thirteen, he has received tuition from former Welsh Champion and Olympiad team member Tim Kett and his wife Sarah, as well as Russell Doddington, and is currently mentored by Pete Heaven. Anshul is a member of the Welsh junior national squad, and has frequently represented the Welsh Chess Union.

Alex Lawrence – Elo 1285
Alex is twelve years old, the captain of the junior team at his local club, and a member of the Welsh Under-14 Team. He has won a number of junior chess congresses, and has recently graduated to his first senior congress. His puzzle-solving ability impressed me greatly, as did his resilient play against Michael in the simul. His current Elo rating, just one year after he solved the puzzles, is an impressive 1673.

Tabitha Ryan – Elo 1100
Tabitha is ten years old, and the captain of St Mary's Primary School chess team in Merthyr Tydfil. She is the current Welsh Under-11 Girls Champion, and a member of the Welsh Under-12 Team.

Ioan James – unrated
Ioan is ten years old. He has only recently learned how to play chess, and has enjoyed playing in internal school competitions. He is also a member of his school team in Merthyr Tydfil in South Wales, and has begun playing in local tournaments.

Many thanks to all these participants, for putting in the time and effort to solve the puzzles that appear in this book, and revealing their thinking process throughout. As a reminder for readers, each player's Elo ratings or equivalents will be listed alongside their answers throughout the puzzle solutions.

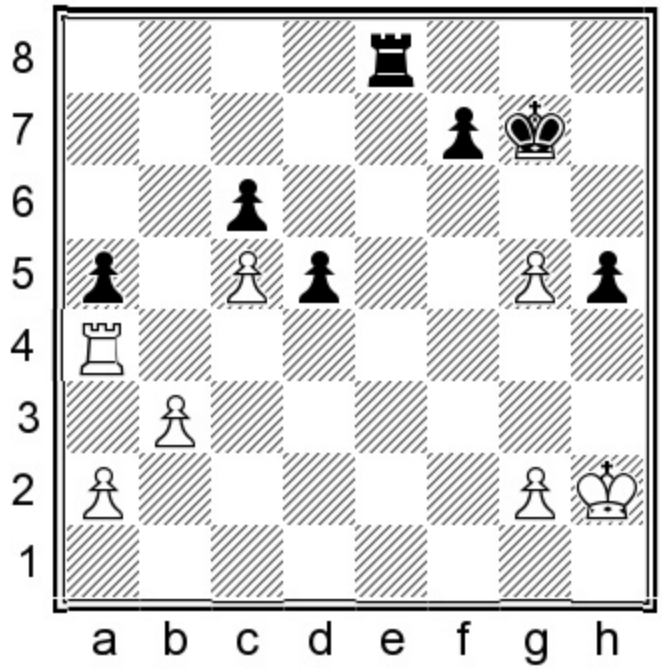
Chapter 2.2

40 Positions and Solutions

Positions 1-4

Easy but Difficult

Puzzle 1



Black to play – Level 7

Show/Hide Solution

Puzzle 1 – Deceptively Difficult

Penny Wood
Elo 1443

We have equal material.

00:20 I have a nice passed pawn in the middle of the board.

00:45 I could play maybe 1...♖e4.
01:30 He can take my a5-pawn. I could move my king up, 1...♔g6 to have a go at the g-pawn.
1...♔g6 seems a bit feeble. White can just grab my pawn on a5.
02:00 1...♔g6 with the idea of ♔f5 and ♔e4 supporting the d-pawn.
02:40 Moving the king up and getting him into action is probably not a bad idea.
03:00 1...♖e2 is no good. The rook is not going anywhere. Maybe I can place the rook behind the d-pawn.
03:40 But I am giving up the a-pawn and leaving the e-file which does not look like a great idea.
04:00 1...♖d8 is possible. The pawn needs a friend behind it.
04:40 Yeah. I would probably go for **1...♖d8**.

Evaluation: Black has a chance here. (–1.0)

Andrew McCumiskey
Elo 2017

Counting pawns: five against five.
My a5-pawn is threatened.
00:30 I can go and grab his g5-pawn.
01:20 I absolutely need to defend my a-pawn: 1...♖a8, but 2.b4! doesn't look good for me! So that is not great.
Let's see some alternative candidate moves.
02:00 The other plan is 1...♖d8, putting the rook behind the pawn, trying to push it up quickly.
03:30 1...♖d8 2.♖xa5, and now I am thinking of 2...d4.
This is another good position you picked, Phil.
1...♖d8 2.♖xa5 d4 3.♖a4 d3
And White cannot get back to stop it.
04:00 So White cannot take. Maybe he has to play 2.♖d4 to blockade the advance.
What about 1...♖e5?
05:00 1...♖e5 2.♖xa5 d4 3.♖a4 And now I can push d3, and his rook cannot come behind it.
07:00 I like 1...♖e5; also it threatens to take his g-pawn.
07:30 Not sure whether to play 1...♖d8 or 1...♖e5. This position is harder on a screen. I am much stronger over the board.
07:45 1...♖e5 is my favourite. I think I am winning. He probably cannot take my a-pawn. And I can take his g-pawn.

Evaluation: –3.0

Michael Adams
Elo 2701

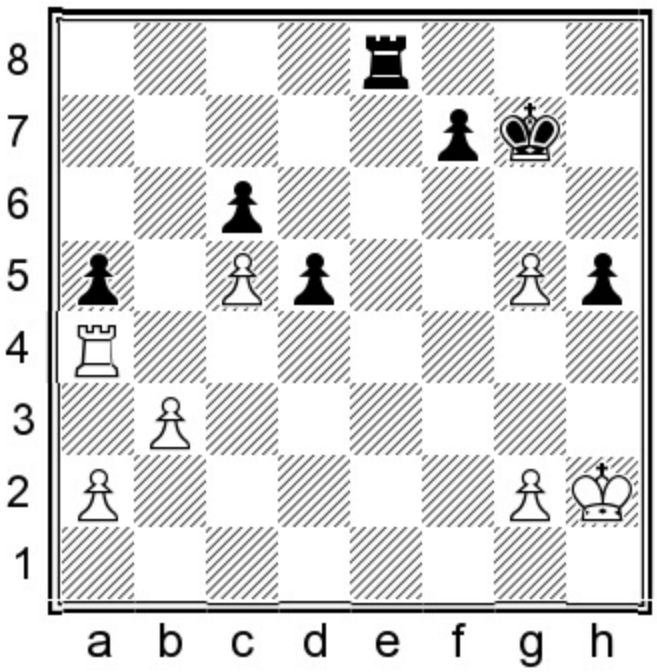
Okay. The pawn on a5 is under attack.
00:40 If 1...♖a8, 2.b4 looks problematic. Black needs to play something active.
00:50 Maybe 1...♖d8, in order to push the pawn forward. 1...♖d8 2.♔g3 d4
01:15 The king needs to get over, to stop the pawn. Is 1...♖e4 possible?
02:00 No, it doesn't work. White just takes on a5.
What about 1...♔g6?
02:30 1...♔g6 2.♖xa5 ♔xg5 and it is not so clear.
03:00 1...♖d8 2.♖d4 ♔g6 and White is in trouble.
03:30 1...♖d8 2.♔g3 d4 3.♔f2 d3 4.♔e1 ♖d5 5.♖xa5 ♖xg5 looks good for Black.
04:00 1...♖d8 2.♖xa5 d4 and it's difficult to stop the pawn.
04:30 The key line is: 1...♖d8 Preparing the advance of the pawn. 2.♔g3 (or 2.♔g1) 2...d4 3.♔f2 ♖d5 And Black is better.
04:45 I think it is clear that **1...♖d8** is the best move. Black is better.

Evaluation: –1.1

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2018



Black's main asset is the protected passed d-pawn, but the protected factor isn't so important with rooks on the board. There are lots of other loose pawns, so activity is paramount.

1...♖d8!

It's normally good endgame technique to place a rook behind a passed pawn, and it is the most challenging approach here.

Neither 1...♖e2? 2.♖xa5 nor

1...♖e4? 2.♖xa5 d4 3.♖a8 makes any sense for Black.

1...♖a8 gives White a choice of decent responses:

a) The obvious 2.b4 was mentioned by some participants but is less effective than it looks – although White should not be in danger. 2...d4 3.bxa5 (3.b5!? cxb5 4.♖xd4 is equally playable) 3...♖d8 4.♖b4 d3 5.♖b1 ♔g6 6.a6 ♔xg5 7.a7 ♖a8 8.♖d1 ♖xa7 9.♖xd3 ♖xa2 10.♖d6 ♖a6 Black has an extra pawn but can hardly hope to win with such a passive rook.

b) 2.♔g3! ♔g6 3.♔f4 is simple and good, with no worries at all for White.

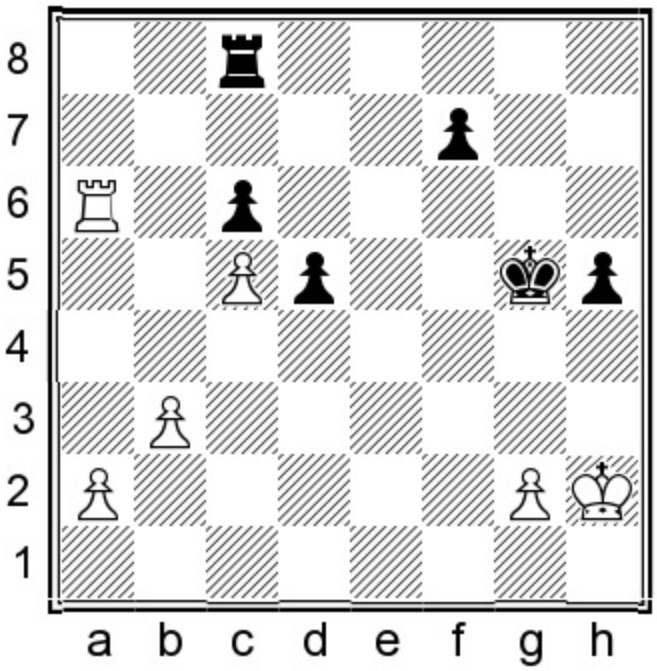
1...♖e5 is met by: 2.♖xa5 d4 3.♖a4 ♖d5 (if 3...d3 4.♖d4 ♖d5 5.♖xd5 cxd5 6.c6 both sides get a new queen and the endgame is a draw) 4.♖c4 The rook is in time to block the d-pawn. 4...d3 5.♖c1 ♔g6 6.♔g3 ♔xg5 7.♔f3 White is out of danger.

1...♔g6

Improving Black's king was played by Phil in the game, and creates some practical chances. Play continued:

2.♖xa5 ♔xg5 3.♖a6 ♖c8

3...♖e6! makes things trickier for White, who requires the tactical solution 4.b4! to create sufficient counterplay. Play continues 4...d4 5.b5! cxb5 (5...d3? 6.bxc6 d2 7.c7 d1=♕ 8.c8=♕ gives White fine winning chances) 6.♖xe6 fxe6 7.c6 d3 8.c7 d2 9.c8=♕ d1=♕ 10.♕xe6 with a level queen endgame.



4.♖a7

4.♔g3! would have avoided trouble.

4...♖d8

4...♔f4! 5.♖xf7† ♔e4! leaves Black's king well placed to support the advance of the d-pawn.

5.♖c7?

5.♔g3! d4 6.♔f2 was necessary.

5...d4! 6.♖xc6 d3 7.♖d6 ♖xd6 8.cxd6 d2

White resigned.

2.♔g3!

White's king must monitor the passed pawn so that the rook can remain active.

2.♖xa5?? d4 and the d-pawn is unstoppable.

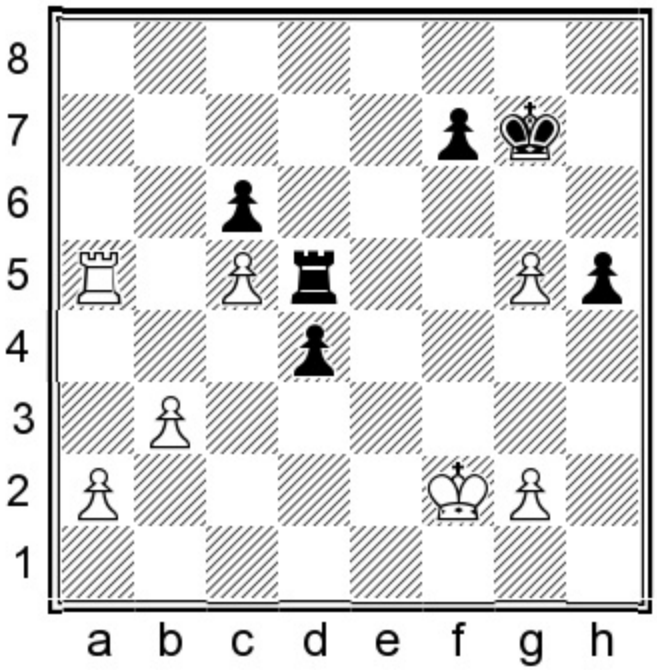
2.♖d4? puts White's rook in a passive spot, and 2...♔g6 collects the pawn on g5.

2...d4 3.♔f2 ♖d5

Now the black rook threatens two pawns along the fifth rank.

3...d3!? 4.♔e1 ♖d5 5.♖xa5 ♖xg5 6.♔d2 ♖xg2† 7.♔xd3 h4 8.♖a4 h3 9.♖h4 h2 transposes to the main line.

4.♖xa5



4...♖f5†!

A clever finesse, forcing White's king away from the g-pawns.

4...♖xg5 5.b4 d3 6.♖a3 ♖d5 7.♔e1 and White is safe.

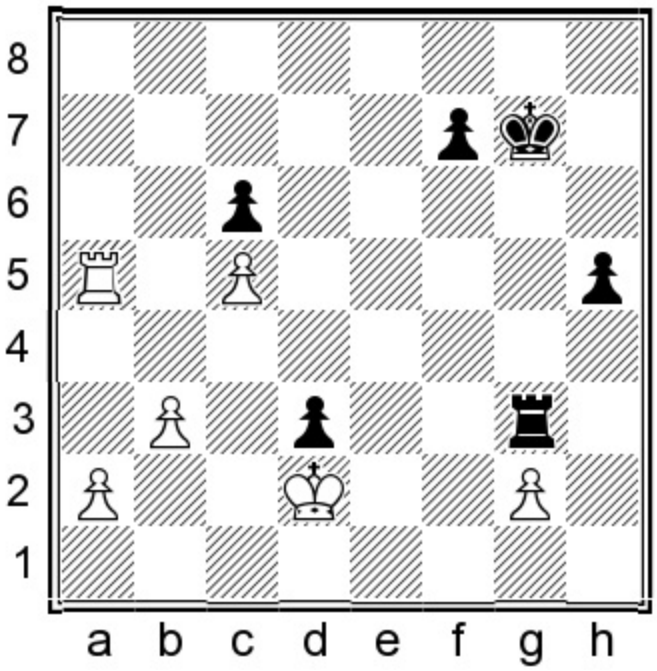
5.♔e2

5.♔g3? d3 6.♖a4 d2 7.♖d4 ♖d5 wins for Black.

5...♖xg5 6.♔f3

6.♔d3 and 6.♖a4 are likely to transpose.

6...d3 7.♔e3 ♖g3† 8.♔d2



8...h4

The most direct.

8...♖xg2† 9.♔xd3 h4 10.♖a4 is another transposition.

Quite a tricky try is:

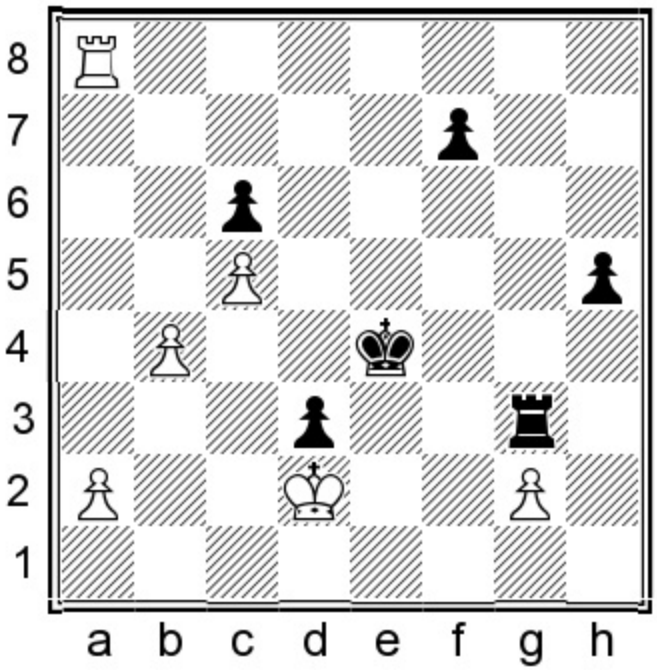
8...♔f6!? 9.♖a4

9.a4!? ♔e5 10.♖a8 ♔d4 11.♖d8† ♔xc5 12.♖f8 should also draw.

9...♔g5

The alternative is 9...♔e5 10.♖h4 f5 11.♔c3! (11.♖xh5? ♔e4 12.♖h4†? f4 13.♖h2 ♖e3–+) 11...f4 12.♖xh5† ♔e4 13.♖h8 ♔e3 14.a4 ♔e2 15.♖d8! and White holds on.

10.♖a8 ♔f5 11.b4 ♔e4



12.♔c3!

Improving the position of White's king is a recurring theme in the defence.

12...♖xg2 13.♖e8† ♔f3 14.♔xd3 ♖xa2 15.♖f8 ♖a7 16.♖c8 ♖a6 17.♖f8=

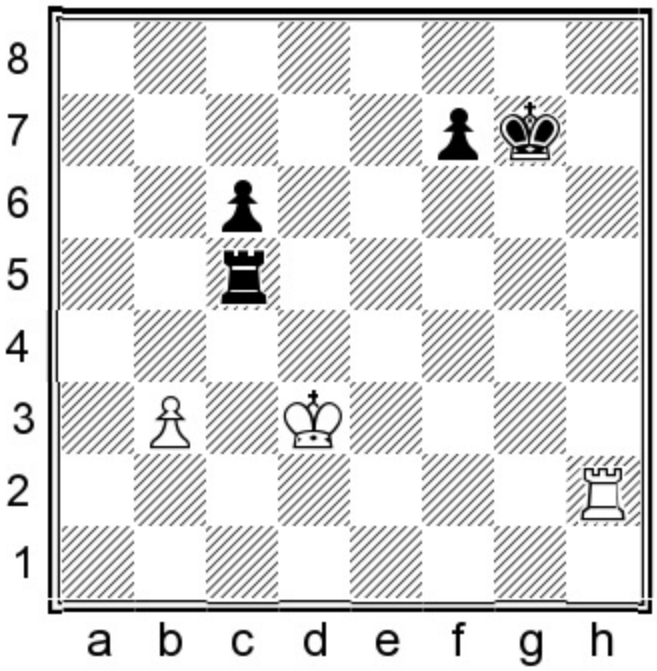
9.♖a4 ♖xg2† 10.♔xd3 h3 11.♖h4 h2 12.a4 ♖a2 13.a5

13.b4!? ♖xa4 14.♖xh2 ♖xb4 15.♖e2 should also lead to a draw with careful play.

13...♖xa5

13...♔g6 14.a6 ♔g5 15.♖h8 f5 16.a7 ♖xa7 17.♖xh2 holds.

14.♖xh2 ♖xc5



Black has emerged with an extra pawn. It shouldn't be enough to win, but White still needs to defend carefully.

15.♔d4

15.b4 ♖e5 16.♖c2 should also work.

15...♖d5†

15...♖c1 16.♔e5 holds.

16.♔e4 ♔g6 17.♖c2 ♖d6 18.♖c5 ♖e6† 19.♔f3 f5 20.b4 ♔g5 21.b5

White liquidates to a clearly drawn endgame.

Scoring for Puzzle 1

Best move	Score	Evaluation
1...♖d8	**10**	**–0.3**
1...♖e5	7	–0.25
1...♔g6	7	–0.1
1...♖a8	5	0

Bonus points for correct evaluation

Between –0.09 and +0.09	2 points
Between –0.10 and –0.59	**3 points**
Between –0.6 and –0.89	2 points
Between –0.9 and –1.39	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Siegbert Tarrasch's famous edict comes to mind:

> *"Rooks belong behind passed pawns: behind their own pawns in order to support their advance; and behind the enemy's pawns, in order to impede their advance".*

Stockfish endorses this advice here. Most strong club players, including myself, tried to work out the consequences of attacking the g-pawn instead, and overestimated our chances. The strongest players such as Adams and Granda made the right choice based mainly on precise calculation.

Another interesting point here is that many of the weaker players, who hardly calculate any lines at all, and base their moves mainly on feeling and intuition, also ended up selecting the right move, just by following Tarrasch's principle.

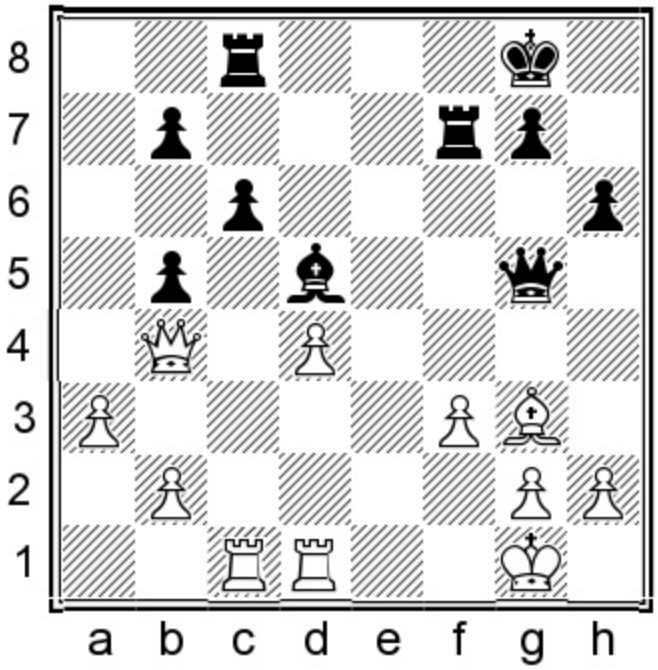
Adams Insight

In this complex position there are many enticing ways to proceed, and calculation regarding

supporting the advance of the d-pawn is important at every moment. The main line, which is quite forcing, results in the d-pawn being corralled by White's king, but this gives Black the opportunity to create dangerous passed pawns on the kingside.

McCumiskey gave 1...♖e5 with a winning position for Black here (–3.0); in his defence, this was partly based on a tactical error that 2.♖xa5 is impossible. However, stronger players would realize from their own experience that even if Black picks off the weakling on g5, this is still a rather hopeful assessment. Imbalanced rook and pawn endgames with an extra pawn are, regrettably, rarely that simple!

Puzzle 2



Black to play – Level 6

Show/Hide Solution

Puzzle 2 – How Accurately Can You Evaluate?

Victor (age 14)
unrated

00:05 Immediately I see a fork: 1...♕e3†
I can also play 1...♖e8 with the idea of getting my rook into White's camp.
00:50 If his king moves with 2.♔f1 then I have 2...♗c4†.
02:30 In fact, coming to think of it, my first move would be 1...♗c4, to prevent 2.♔f1. Followed by 2...♕e3† and if the king moves to h1. I could play 3...♖e8 and 4...♕e2.
03:05 Oh! But then white has 5.♖e1 and I lose my rook.

04:20 If I were to take the f3-pawn with my bishop:
1...♗xf3 2.gxf3 ♖xf3 White can then do whatever he feels like. And then:
3...♖xg3† 4.hxg3 ♕xg3† 5.♔h1 ♖f8 And now what does White do? I am playing 6...♖f2 with a good attack.
06:00 Other ideas are 1...♖e8 followed by 2...♖e3 and 3...♗b3 and 4...♕e7. White will obviously not let this happen, but that would be a great position for me.
08:00 White's king is well protected at the moment. So to win I would probably need to fire some ammunition shots against it.
08:25 So I think I would probably play **1...♗xf3** and start bombarding the king's fortress.

Evaluation: Black is probably better.

Akshaya Kalaiyalahan
Elo 2149

00:55 I am looking at something like ...h5-h4.
04:00 1...h5 2.♕e1 (to prevent ...h4) 2...♗xf3
11:00 I am still looking at 1...h5 2.♕e1 ♗xf3 3.gxf3 h4 4.♔g2 hxg3 but don't think it is good for Black.
13:00 I am going to go for **1...h5** and if 2.♕e1 ♕g6.

Evaluation: –0.50

Harriet Hunt
Elo 2414

I am a pawn down. Other than that, I am happy with the position.
01:05 I am wondering if we can sacrifice something on f3, e.g. 1...♖xf3 2.gxf3 ♕e3† followed by 3...♕xf3†.
I am going to have a look at that, and see if it works:
1...♖xf3 2.gxf3 ♕e3† Black wins.
04:30 So White cannot take the rook; he has to move something else.
06:00 1...♖xf3 2.♖e1 (or 2.♖c3) 2...♖e3 Keeping the tension.

07:00 White doesn't have any counter-attacking chances. They are left suffering on the light squares.
1...♖xf3 2.♖e1 ♖e3 followed by taking control of the e-file with ...♖ce8.

Evaluation: –0.8

Michael Adams
Elo 2701

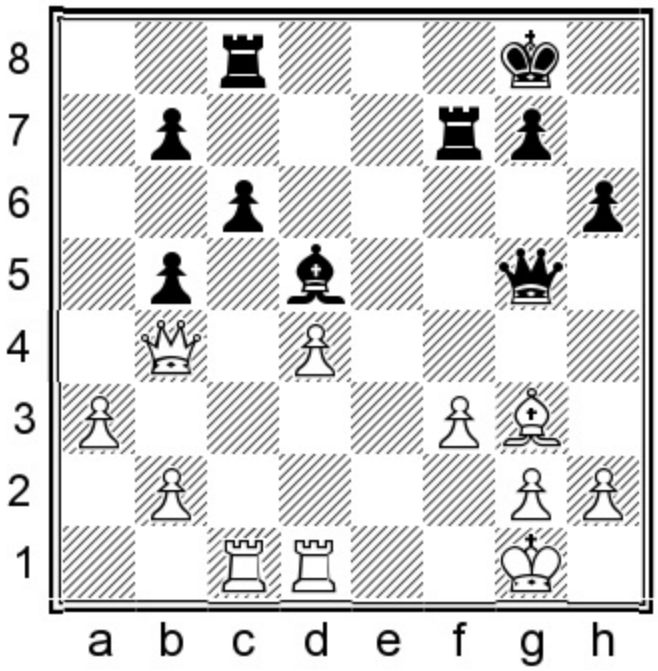
I am attracted to the idea of 1...♖xf3 just because it looks dangerous for White to take.
00:11 1...♖xf3 2.gxf3 ♕e3†
01:05 White is not forced to capture the rook. He can play 2.♕d2 to try and swap queens. But in that event, Black has much the better bishop.
(Thinks in silence.)
04:35 1...♖xf3 is the strongest move. And White should not take it.

Evaluation: –0.4

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019

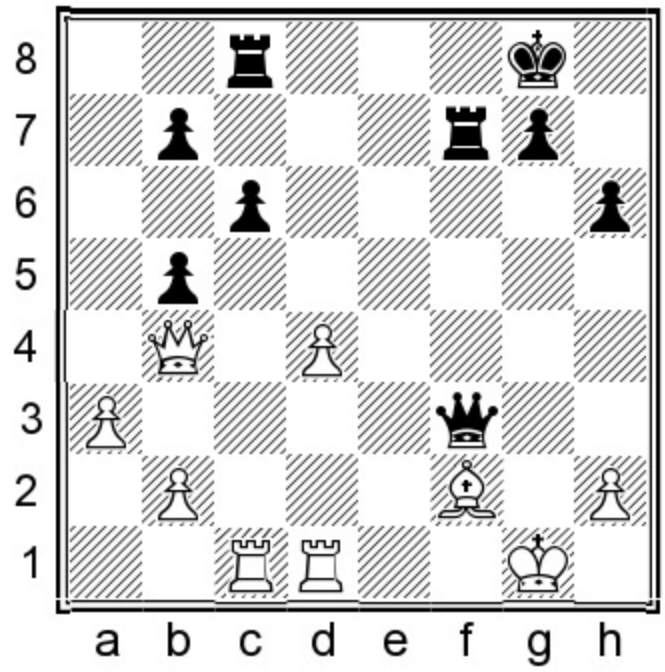


Positions with opposite-coloured bishops can throw up unexpected attacking possibilities, and here White's misplaced queen gives a passing chance. It's important to understand the value of the untouchable bishop on d5, unopposed in the middle of the board.

1...♖xf3!
Black has to seize the moment here, as White is only a move away from bringing the queen back

into the game from the queenside, thus defusing any attacking ideas. It's important to give up the rook, rather than the bishop, as control of the light squares around White's king is key to generating threats.

1...♗xf3? 2.gxf3 ♕e3† 3.♗f2 ♕xf3



And now 4.♖d2, 4.♖f1 or 4.♕d2 all see off the attack.

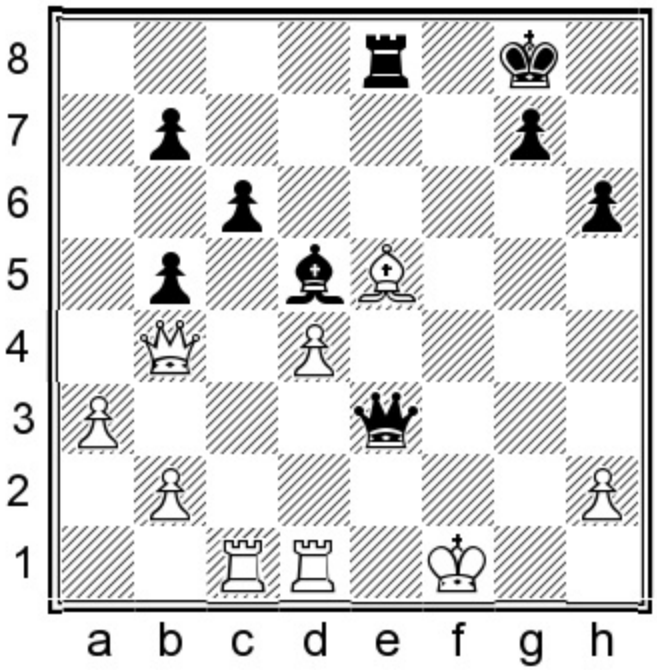
1...h5? has the reasonable idea of playing ...h4, but that proves too slow as White can recover coordination with either 2.♕d2 or 2.♕e1.

1...♕e3†? is met by 2.♗f2.

2.♕d2!

An important defensive idea, not weakening the eroded kingside further, while preventing ...♕e3† and seeking relief in exchanges.

The naive 2.gxf3? is impossible due to the attacking potential of opposite-coloured bishops. 2...♕e3† 3.♔f1 (3.♔g2 ♕xf3† 4.♔h3 ♗e6† 5.♔h4 ♕g4#) 3...♕xf3† 4.♔e1 ♖e8† 5.♗e5 ♕e3† 6.♔f1



6...♗e6! Threatening ...♗h3 mate. (The simpler 6...♖f8† 7.♕xf8† ♔xf8 also wins.) 7.♔g2 ♗h3† 8.♔h1 ♕f3† 9.♔g1 ♕g2#

However, White doesn't have to capture the rook and, by continually aiming to swap major pieces, can steer the game towards a draw.

2...♖e3

A tricky practical try would be:

2...♕g4!?

Attempting to keep more material on the board in an effort to pose more problems to the defence.

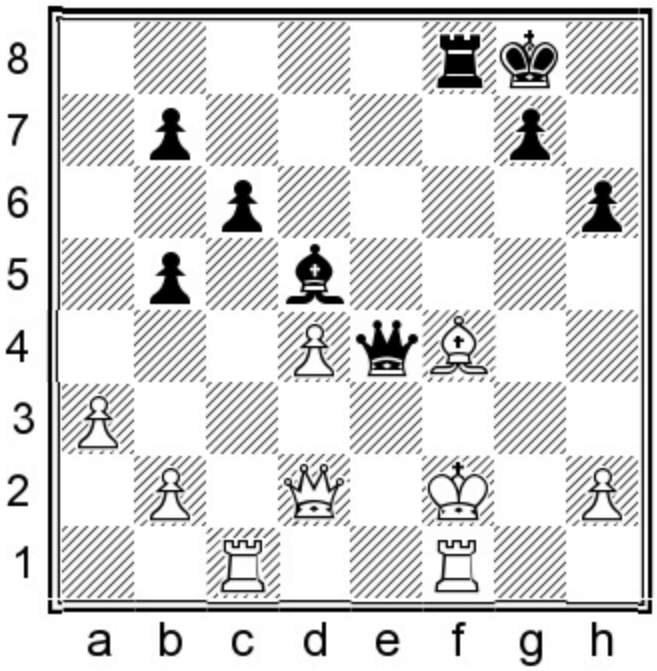
3.gxf3!

This is the most accurate, but calculating the only drawing line over the board would not be easy.

3.♖f1 ♖b3 offers Black slight but enduring pressure with no real risk.

3...♕xf3 4.♖f1 ♕h1† 5.♔f2 ♖f8† 6.♗f4 ♕e4

6...♕xh2†? 7.♔e1 ♕h4† 8.♖f2 leaves Black without a convincing follow-up.



7.♔g3

7.♔g1? g5 wins.

7...♖f6

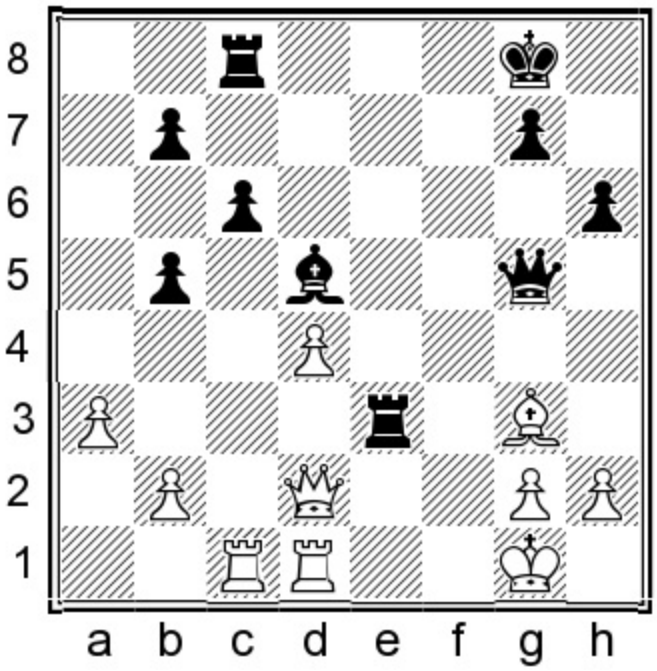
7...♕g6† leads to a draw after: 8.♔f2 (or 8.♗g5 ♕d6† 9.♗f4 ♕g6†=) 8...♕e4=

8.h4 ♖g6† 9.♗g5 hxg5 10.hxg5 ♖xg5†

10...♕e7!? 11.♖f5 (11.♔g4!? is also possible) 11...♖e6 12.♖e5 ♖xe5 13.dxe5 ♕xe5† 14.♕f4 ♕xb2 15.♖e1 reaches a double-edged position which should be a draw, but in practice any result would be possible.

11.♕xg5 ♕g2† 12.♔h4 ♕h2† 13.♔g4 ♕g2†=

With perpetual check.



3.♖c3!

Now it is hard for Black to avoid major liquidation.

3...♖ce8

3...♖xc3 4.♕xg5 hxg5 5.bxc3 ♖a8 6.♗d6 is close to a draw.

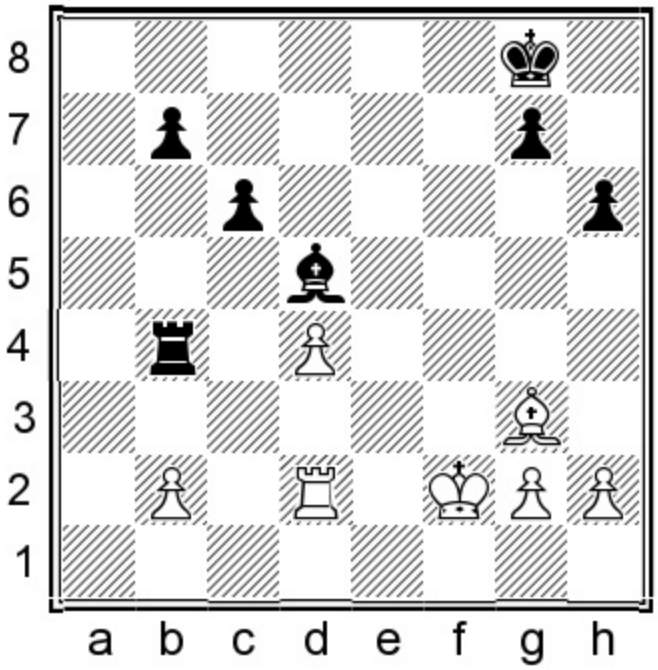
4.♖xe3 ♕xe3†

After 4...♖xe3 5.♔f2! ♖b3 6.♕xg5 hxg5 7.♖d2 the doubled g-pawns reduce Black's chances.

5.♕xe3 ♖xe3 6.♔f2 ♖b3 7.♖d2 b4 8.axb4

8.a4 ♔f7 and Black can keep trying.

8...♖xb4



The position should be a draw but White still has some suffering ahead, due to the two isolated pawns on the queenside and the more passively placed rook.

Scoring for Puzzle 2

Best move	Score	Evaluation
1...♖xf3	**10**	**–0.3**
1...♖e8	1	+0.6
1...♕e3	1	+0.7
1...h5	1	+1

Bonus points for correct evaluation

Between –0.09 and +0.09	1 point
Between –0.10 and –0.29	2 points
Between –0.30 and –0.59	**3 points**
Between –0.6 and –0.89	2 points
Between –0.9 and –1.39	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This is one of those moves that you either spot quickly or miss completely. Most players, myself included, once they find 1...♖xf3 go for it, and evaluate the position very favourably to Black. All strong players, and especially top grandmasters, spend more time on finding their opponent's best reply and find 2.♕d2! leaving Black with just a minimal advantage.

I noticed early on when conducting the experiments that stronger players would not play their move immediately, no matter how obviously good it looked. Michael, for example, even though he saw 1...♖xf3 after only eleven seconds, did not play the move until four-and-a-half minutes later. By then he had seen White's best reply 2.♕d2, and assessed the position incredibly accurately – with the precision of a chess engine.

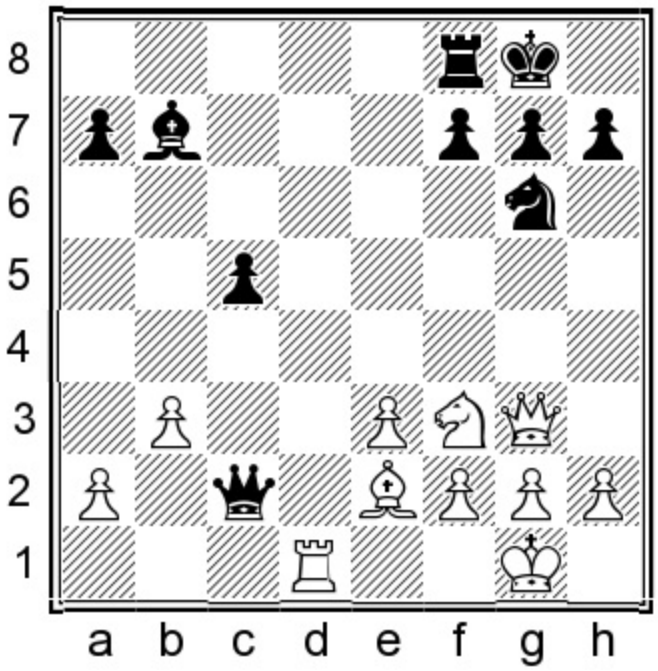
Adams Insight

I felt that those who missed 1...♖xf3 here were probably not sufficiently aware of the power of opposite-coloured bishops whilst attacking. If the rook on f3 is captured, White is helpless on the

light squares.

It is also worth noting that White's major pieces don't influence the kingside at all in this puzzle position; they are all on the other side of the board, and the best defensive idea is to bring them back into the game as quickly as possible, aiming to minimize the damage with exchanges. Although the rook can't be captured immediately, the queen retreat means that Black will have to allow exchanges as White consolidates. Black's bishop is especially well located on d5, as the pawn on d4 prevents any white pieces from disturbing it.

Puzzle 3



White to play – Level 7

Show/Hide Solution

Puzzle 3 – Simple, Yet So Difficult

John Green
Elo 1563

Materially, Black and White are even. Oh, no they are not! White is a pawn up.
00:30 Black is threatening to take the bishop on e2. And also to take the pawn on a2.
01:00 The white king is on the back rank. There could be back-rank issues. White has to protect his pieces.
01:45 Can we play an active move? Can White play 1.♖d7? No, I can't. I can't move the rook because I lose the bishop. And I can't move the bishop because I lose the rook.
02:00 I think I have to move the rook.

03:30 White might have an edge, but has to be careful. I like the idea of 1.♖d2 at the moment. Protecting the bishop and attacking the queen.
04:00 White cannot develop his pieces. Whereas Black can.
04:45 1.♖d2 would be my move. Unless I am missing something.
If he gives me check, I can play ♗f1, or ♖d1.
06:30 And if he moves 1...♕e4, I can play 2.♖d7.
08:00 1.♖d2 is my move. White is better because Black's pawns are weak and isolated.

Evaluation: +1.0

Anonymous
Elo 2305

My first thought is that White is a pawn up.
00:25 Black's queen on c2 is really active though. It can take the pawn or the bishop. Let's see. Black's king is well protected, so there is no immediate attack on the king.
01:30 1.♖d2 is the first move to consider. 1...♕c1† 2.♗d1 and I maintain my material advantage. What I said is not true. 2.♗d1?? Loses to 2...♗xf3.
02:00 So after 1.♖d2 ♕c1† I have to play 2.♖d1 ♕c2, with a repetition.
So if I don't want a repetition, I have to think of something else. Maybe 1.♔f1, or 1.♖e1.
05:00 To 1.♔f1 there is 1...♗a6!.
1.♖e1 ♕xa2 looks quite equal.
1.♖e1 ♕xa2 Maybe I can now think of an attacking move, like 2.♘g5 or 2.♗c4.
07:30 2.♗c4 ♗xf3 3.gxf3 (to avoid more exchanges with 3.♕xf3 ♘e5).
I believe White preserves a small advantage after 3.gxf3. The good thing is that the bishop on c4 is well placed, and I can follow-up with h4-h5 and putting pressure on f7.
09:00 Black's pawn on c5 is weak also.
11:00 1.♖e1 looks passive, but it is the only good move. The other move 1.♘d2, I wouldn't even consider it.

1.♖e1

Evaluation: +0.75

Julio Granda
Elo 2630

White has an extra pawn. White appears to be better.
The first move I can think of is 1.♖e1.
01:00 1.♔f1 ♗a6 can be annoying.

01:45 After 1.♖e1 I like White. They have a better pawn structure. And White can play ♗c4, h4 and h5.
03:30 Another interesting variation could be: 1.♘d2 ♖d8 2.♘f1 ♖xd1 3.♗xd1 ♕xd1 4.♕b8†
04:00 Also 1.♘d2 ♕xa2 2.♕c7 ♗a6 3.♕xa7
No. I am not totally happy with 1.♘d2, it allows too many exchanges.
12:00 I'll probably stick to 1.♖e1.
(Thinks in silence for a while.)
13:00 1.♘d2 ♕xa2 2.♕c7 ♗d5 3.♕xc5 ♗xb3 4.♘xb3 ♕xe2 And now I can play 5.♖f1 or 5.♖c1 and White is better. I can manoeuvre my knight to d4 and f5 and keep the pressure.

1.♘d2

Evaluation: +0.9

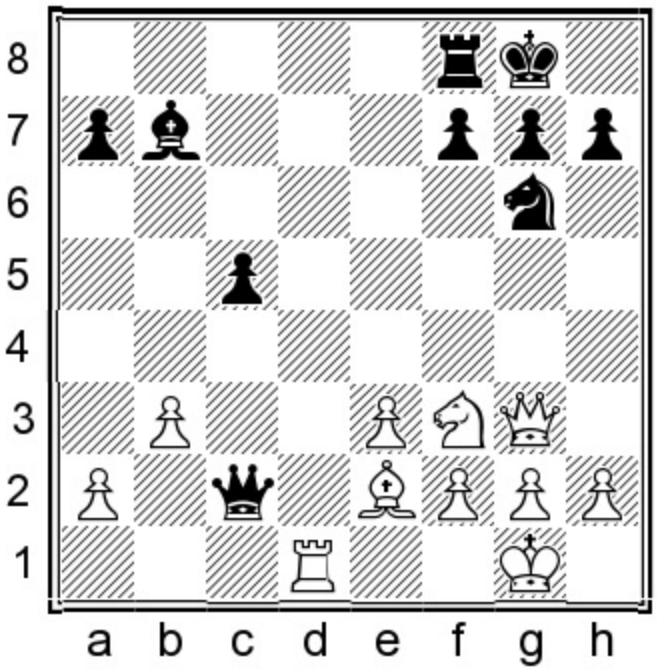
Michael Adams
Elo 2701

00:30 The bishop is attacked. I have three options: 1.♖d2, 1.♖e1 and 1.♔f1. This requires some calculation.
01:30 1.♔f1 is looking bad because of 1...♗a6!.
01:50 1.♖d2 ♕c1† and White is forced to go back to 2.♖d1, with a repetition of the position.
02:30 1.♖e1 ♕xa2 and now 2.♗c4 or 2.h4 could be interesting.
03:45 1.♖e1 ♕xa2 2.♕c7 could be slightly better.
1.♖e1 is probably the strongest move.
04:30 1.♖e1 ♕xa2 2.h4 ♕xb3 3.h5 ♘e7 Now I can't play 4.h6 because of 4...♘f5. But the position seems promising for White.
05:00 I would go for **1.♖e1**. After 1...♕xa2 White can continue with either 2.♗c4 or 2.h4, with small pressure.
Evaluation: +0.3

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



White has an extra pawn, but this will be regained once White meets the threat to the bishop. White's advantage lies in the fact that the bishop can settle on an excellent post on c4, which will set up attacking possibilities such as h4-h5 or ♘g5. The advance of the h-pawn has the additional positive of negating back-rank problems, blending attack and defence.

1.♖e1!

White calmly plays the move that most comfortably consolidates. The rook is securely defended by the knight here.

1.♖d7?? fails to 1...♕xe2, as the bishop can't be captured due to the back-rank problem.

1.♖d2 ♕c1† 2.♖d1! (2.♗f1? ♗xf3–+) 2...♕c2 repeats the position, giving White a second chance to play 3.♖e1!.

1.♔f1

It appears logical to keep the rook on the d-line, but White's pieces aren't soundly placed enough for this move, and importantly Black can swap White's bishop with a tactical idea.

1...♗a6! 2.♖e1!

The alternatives 2.♗xa6? ♕xd1† and 2.♖d2? ♕c1† 3.♘e1 (3.♖d1 ♕xd1†–+) 3...♕xd2 win for Black.

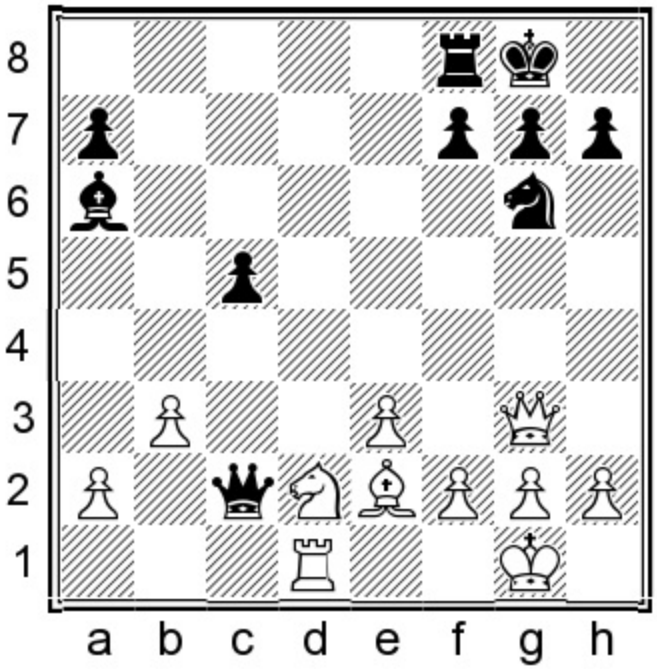
2...♕xa2

Black's problems have mostly been solved.

1.♘d2?!

This move was chosen by Julio based on the line 1...♖d8? 2.♘f1 ♖xd1 3.♗xd1 ♕xd1 4.♕b8† ♘f8 5.♕xb7 and White wins – but he missed an important resource.

1...♗a6!



2.♗h5!

2.♗f3? ♖d8 wins for Black.

2...♖d8 3.e4

3.♕c7? runs into the sublime 3...♖d5! when Black wins easily, as the knight can drop back to f8 to defend along the back rank. (3...♖xd2 4.♖xd2 ♕xd2 5.♕b8† ♘f8 6.♗xf7† ♔xf7 7.♕xa7† allows White to fight on.)

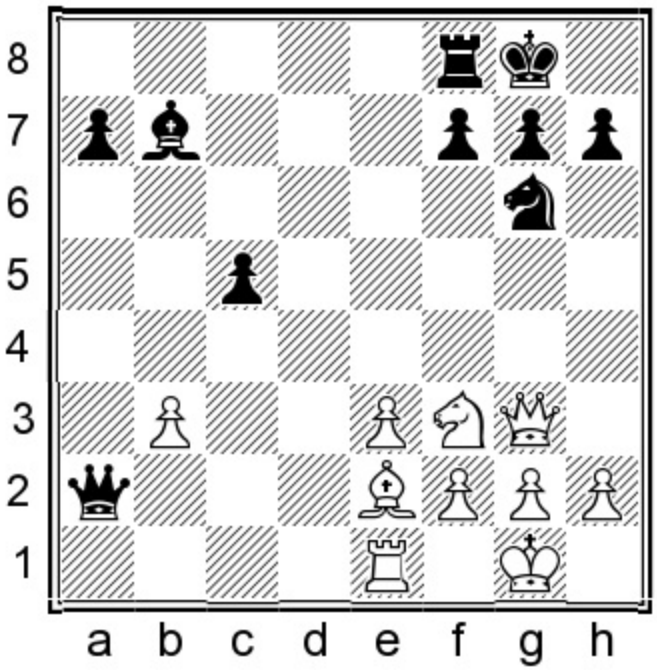
3...h6!

3...♖xd2? 4.♕b8† ♘f8? 5.♗xf7†! ♔xf7 6.♕f4† with good winning chances for White.

4.♕e3 ♕xa2

Black regains the pawn with dominant pieces.

1...♕xa2



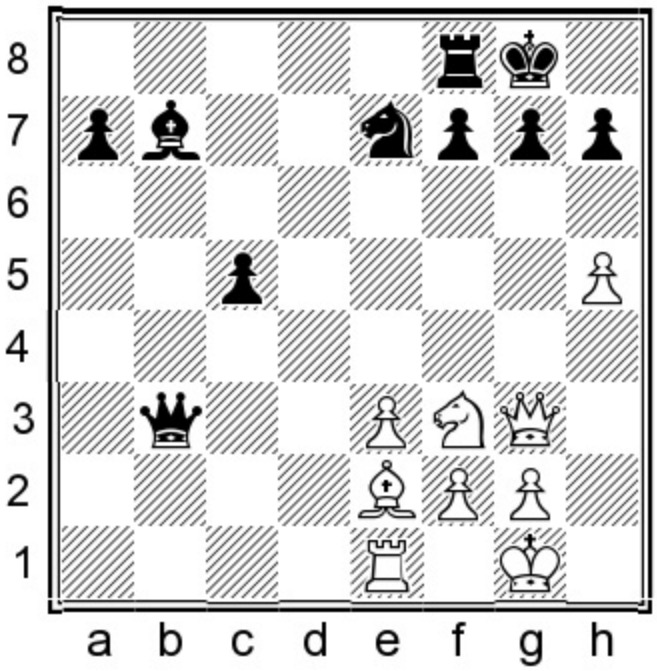
2.♗c4

The bishop is powerful on this outpost, securing the b3-pawn and eyeing f7. Having consolidated his own position, White has many threatening possibilities such as h2-h4, ♘g5, ♕d6 or ♕c7. Black will have to take swift action to take the sting out of a potential kingside attack. This will involve making concessions to negate White's attacking ideas, which is likely to mean drifting towards an unfavourable endgame.

I was also tempted by targeting the black knight immediately:
2.h4!? ♕xb3

The idea is that 2...h5 3.♗c4 now gains in strength by threatening to remove Black's knight.
3.h5 ♘e7

3...♗xf3 is well met by 4.gxf3! (4.♗xf3 ♕c3! 5.♖d1 ♘e5 solves Black's problems) 4...♕c3 5.♖d1 ♘e5 6.♖d5 and Black's knight lacks a stable outpost. If 6...f6? 7.f4 ♘c6? 8.h6 White is already winning, as 8...g6 9.f5 g5 10.♕c7 decides.



4.♕g5 ♕b4

4...♕e6 5.♕xc5 is also problematic for Black.

5.♖d1 f6 6.♕g3 ♘f5 7.♕c7 ♕b6 8.♖d7 ♗c6 9.♕xa7 ♕xa7 10.♖xa7 ♘d6

Black should be able to hold on, but White is still pressing.

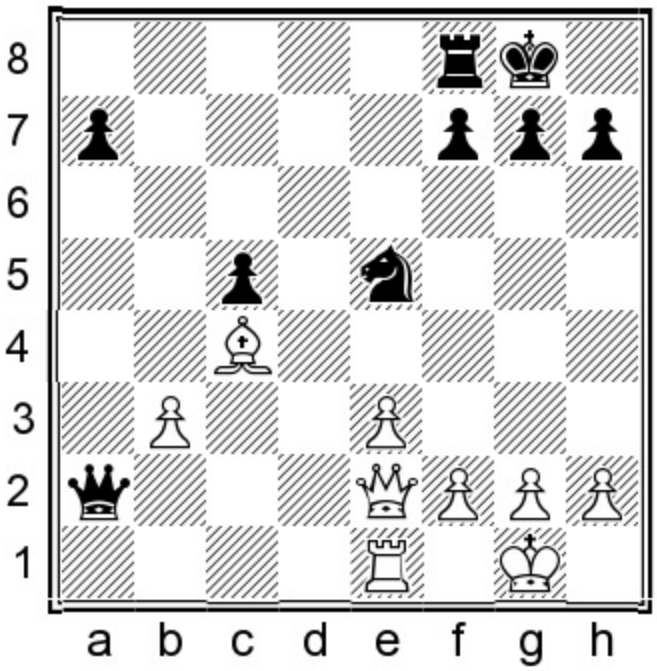
2...♗a6

Black looks for relief in exchanges, and sensibly proposes a trade of the powerful bishop on c4.

2...h6?? allows 3.♕xg6.

2...♕a5 3.♖c1 leaves Black worse, due to the split queenside pawns and less active pieces. 3...♕a3 4.♖d1 The one-move threats have enabled White to transfer the rook back to the d-file, while Black has achieved nothing shuttling the queen back and forth.

2...♗xf3 makes sense in terms of reducing material, but now it becomes clear how strong the bishop on c4 is. 3.♕xf3!? (3.gxf3 is also quite potent: 3...a5 4.f4 a4 5.f5 and White's play is arriving first.) 3...♘e5 4.♕e2! A small trick to maintain the bishop.



4...♕xe2 5.♗xe2 ♖b8 6.f4 ♘c6 7.♗c4 White has a pleasant endgame advantage. Notice that 7...♘a5 doesn't force an exchange in view of 8.♗d5 ♘xb3? 9.♖b1 and White wins.

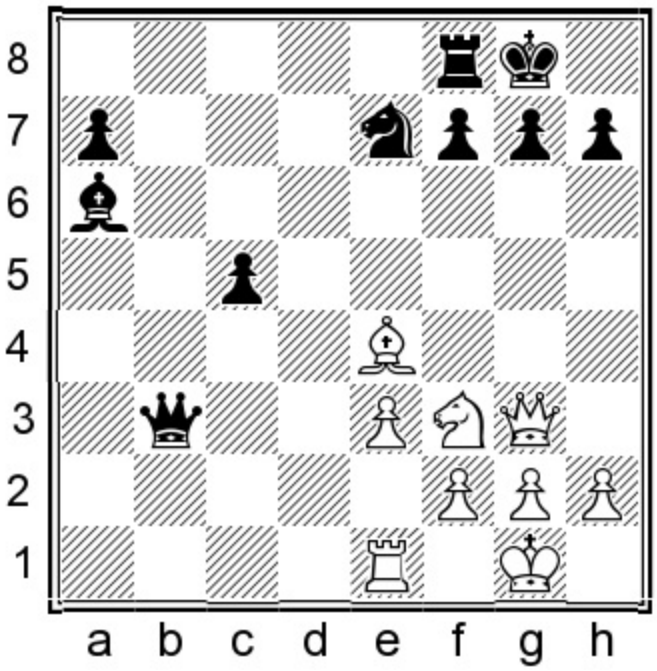
3.♗d5 ♘e7 4.♗e4

Black has dislodged the bishop from its strong diagonal, but at the heavy cost of destabilizing both of Black's own minor pieces.

4...♕xb3

4...f5?! 5.♗b1! ♕xb3? 6.♕d6 with decisive threats.

White has several good continuations here.



5.♕d6

5.♕e5!? ♘g6 6.♕xc5 should enable White to win the a7-pawn sooner or later. For instance, 6...♕b6 7.♕a3 ♗b5 8.♖b1 a6 9.♘d4 ♖b8 10.♗d3± and White will reach a 4–3 scenario on the kingside.

5...♕e6 6.♗xh7†!

A convenient tactical idea.

6...♔h8

6...♔xh7? 7.♘g5† wins.

7.♕xe6 fxe6 8.♗c2

Black will struggle to defend the four pawn islands in this endgame.

Scoring for Puzzle 3

Best move	Score	Evaluation
1.♖e1	**10**	**+0.8**
1.♖d2	3*	+0.8
1.♔f1	3	+0.2
1.♘d2	1	–0.7

* 1.♖d2 is assessed by the computer as being on a par with 1.♖e1, but only because of the repetition 1.♖d2 ♕c1† 2.♖d1 ♕c2, when 3.♖e1 gives White the advantage. For the purpose of the exercise, 1.♖e1 is the key idea needed to fight for the advantage.

Bonus points for correct evaluation

Between +0.10 and +0.29	1 point
Between +0.30 and +0.59	2 points
Between +0.6 and +1.39	**3 points**
Between +1.4 and +2.49	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I found myself in this situation as White in a blitz game. I remember considering 1.♖e1 for a brief moment, but quickly rejected it as it felt too passive, and settled for 1.♖d2, followed by a draw by repetition.

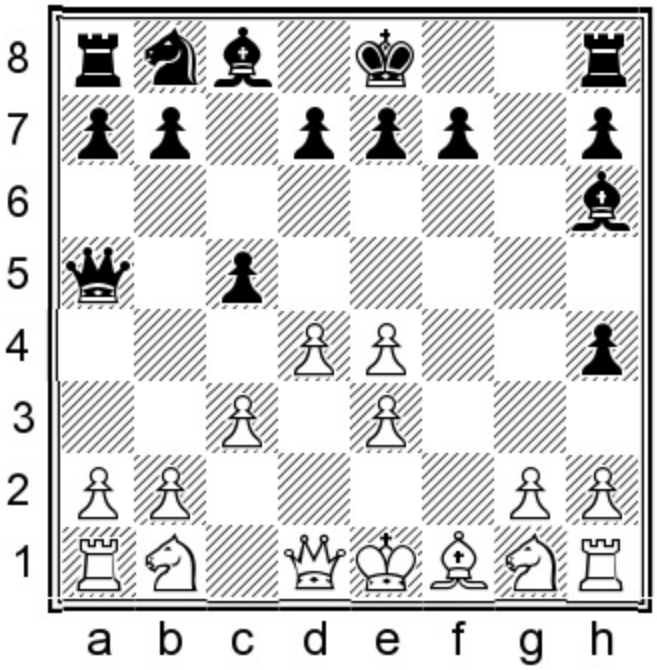
When I reviewed the game with Stockfish, I was surprised at the big advantage it thought White had. I wondered what fabulous move it had seen. I was amazed at the simple yet unnatural solution 1.♖e1!. The move is particularly difficult to play, for two reasons. First, it involves moving your rook away from the only open file, which contravenes one of our most instilled principles; and secondly, it throws the a2-pawn to the wolves.

I showed this position to many club players, and although the best move occasionally fell into their radar, nobody below 2300 dared play it.

Adams Insight

Sometimes you have to take a backward step before you can go forward. Although 1.♖e1 is undesirable for a few reasons, it secures White's pieces and leaves White free to undertake more positive action on the following moves. The bishop can head to a good post on c4, and attacking ideas with h4-h5 are available. There are enough positives to White's position to enable White to exert considerable pressure, even once the rook has temporarily taken a passive position. Black's knight on g6 is badly placed, and frequently becomes a liability once White challenges it with the h-pawn. White also has the long-term advantage of the better structure, due to Black's additional pawn island on the queenside. Looking over the variations, there are several scenarios where these pawns can easily drop off. White is able to press here without taking risks.

Puzzle 4



White to play – Level 8

Show/Hide Solution

Puzzle 4 – You are above 2300 if you saw it

Philip Hurtado
Elo 1924

00:15 The bishop is attacking my pawn on e3.
1.♕f3 or 1.♕h5 ideas, with ♖f1 or ♗c4 to follow, attacking on f7, seem strong. The question is: what to play first?
02:00 If 1.♗c4 he has 1...♗xe3 although there may be tactics with 2.♕f3.

03:00 If 1.♗c4 ♗xe3 I could play 2.♗xf7† and 3.♕f3† recouping the bishop and exposing his king. So 1.♗c4 is a possibility.
1.♗c4 b5 seems like another answer. Although then, 2.♗d5 ♘c6 could follow.
1.♕f3 may be the best move.
05:00 1.♘d2 seems too slow.
06:00 I am going for **1.♕f3**. It puts immediate pressure.

Evaluation: +0.65

Andrew McCumiskey
Elo 2017

00:45 No idea what opening this came from. My e-pawn is under attack. I do dominate the centre, which is always a good thing.
Let's look at candidate moves.
1.♘f3 seems like an obvious move.
01:30 Also 1.♕h5 to attack his bishop. But my e3-pawn is hanging.
03:15 Ah, yeah! Okay, 1.♕h5 ♗xe3 2.♗c4 Threatening f7. 2...e6 Then I can think of bringing a rook to f1 to increase the pressure.
04:00 I'd have a nice attack. But not sure if it is worth the pawn.
There has to be some tactics going on here.
05:30 1.♕h5 ♗xe3 2.♗c4 e6 Forced, it seems. I like ♕h5 as it complicates things massively for him. I can then play 3.♖f1 ♖f8 and that looks nasty for him. I get developed pretty quickly.
07:00 I am pretty convinced 1.♕h5 is the best move. It is dynamic; it's going to bust open the position.
Hang on – I have a knight on g1! 3.♖f1 is not possible!
09:45 1.♕h5 ♗xe3 2.♗c4 e6 3.♘f3 maybe. Still a good developing move. It still looks good for me as I am getting all my pieces out.
I am going to play **1.♕h5**. Even if I am a pawn down. I get lots of activity for it.
11:30 And even if after 1.♕h5 ♕b6, I can play 2.b3. It puts immediate pressure.

Evaluation: +0.5

Anonymous
Elo 2305

00:30 This is an early position from a weird opening.
(The participant attempts to recreate the opening from the beginning and correctly deduces it stems from a Trompowsky.)
01:50 1.d4 ♘f6 2.♗g5 ♘e4 3.♗h4 g5 4.f3 gxh4 5.fxe4

Black hasn't played greatly so far. His position doesn't look pretty.
03:00 My candidate moves are: 1.♕h5, 1.♘d2.
03:45 After 1.♕h5 ♗xe3 I could play, maybe, 2.♗c4. This position is weird, with many options for both sides.
04:15 1.♘d2 is definitely a good move in my opinion. It stops 1...♗xe3, and it is a natural developing move. White can achieve good play with it.
05:00 White's main worry is that he is playing without the black-square bishop, and those squares could become weak.
05:20 So, 1.♘d2 is a good move, and I'll come back to it later.
05:40 Perhaps 1.♗c4!? ♗xe3 2.♕f3!.
I shouldn't overestimate my position. I've done this in the past and paid the price.
07:00 Black has the bishop pair, and if White doesn't get a positional advantage, he can run into trouble later on in the game. I think White has the upper hand here, and should find a move that gives him the edge.
08:30 Okay, I can't see a killer blow for White here. So I would play: **1.♘d2**

Evaluation: +0.35

Juan Reyes
Elo 2451

Ah! A Trompowsky! In these positions, when the black queen is still on d8, it is customary to play 1.♔f2.
00:30 However, 1.♔f2 in this particular position might be dangerous because of 1...f5, attacking me later on down the f-file.
The question here is if I can defend the pawn on e3 with a developing move such as 1.♘a3:
1.♘a3 ♗xe3?? 2.♘c4! wins.
01:50 So after 1.♘a3 cxd4 2.♘c4 followed by 3.exd4. This looks good. I have to look now for any "in-between" moves.
Yes, 1.♘a3 cxd4 is good for White.
I am not sure if to play 1.♘a3 or 1.♘d2, with the same idea.
03:45 1.♘d2 b5!? Oh, but then I have 2.♘b3 and take on c5.
I like ♘a3.
08:00 1.♘a3 cxd4 2.♘c4 ♕g5 3.♘f3 ♕g4
09:00 Trying to defend the pawn with 1.♕f3 cxd4 is good for Black. White has to play for quick development.
I like both 1.♘a3 and 1.♘d2 equally. 1.♘d2 also has the additional threat of 2.♘b3, and it is a more classical type of move.
13:00 1.♘d2 is perhaps more forcing. After 1.♘a3 I am compelled to move it later on to c4. 1.♘d2 gives me more options.
13:30 Yes, I play **1.♘d2**.

Evaluation: +0.70

Keith Arkell
Elo 2429

Feels like a Trompowsky.
00:30 *(Keith successfully reconstructs the position from move 1.)*
01:00 My first thought is not to defend the pawn on e3 and to "get on with it."
There is something tempting about 1.♕h5.
01:30 1.♕h5 ♗xe3 Then I could play 2.b4 and spoil my pawn structure.
02:10 Another try is 1.♘d2 (to answer 1...♗xe3 with 2.♘c4), developing and gaining a tempo. If Black's best reply to 1.♘d2 is 1...b5, then White is doing great.
03:00 1.♘d2 cxd4 2.exd4 and White's position looks very nice.
Could 1.♘a3 be better than 1.♘d2? It makes ...b5 less playable.
05:00 Actually, 1.♘a3 b5 is playable, because if 2.♗xb5 ♗xe3 I can no longer play 3.♘c4. The bishop on b5 is en prise.
06:00 So maybe ♘d2 is better, and simpler. Let me check: 1.♘d2 b5 2.♘b3 and then I can deal with my e3-pawn.
06:50 1.♘d2 b5 2.a4!? ♗xe3 3.axb5 ♗xd2† 4.♔xd2
07:30 I will start with **1.♘d2**. I still haven't decided what to do against 1...b5, but it looks very good for White.

Evaluation: +0.4

Julio Granda
Elo 2630

00:15 The first move that comes to mind is 1.♘a3, or even 1.♘d2, which looks more logical.
One must always consider other moves. *(He thinks for a while.)*
03:00 I was trying to lure Black into taking the e3-pawn with his bishop and trapping it. But ended up rejecting those ideas.
04:10 White is definitely better. They have the centre and the open f-file. Therefore 1.♘d2 is the most logical continuation: It defends e3, and the threat of 2.♕h5 is very unpleasant for Black.
04:30 1.♘d2 cxd4 2.exd4 and White's position looks very nice.
I was considering 1.♗c4 and ♕f3 ideas, but in many of those variations, even when I take on f7, the black king finds a safe haven on d8 and gets good counterplay.
05:00 So I stick to **1.♘d2**.

Evaluation: +0.70

Michael Adams
Elo 2701

A very sharp position. The pawn on e3 is attacked. We can play a developing move: 1.♕h5, 1.♘d2, 1.♕e2.
00:50 1.♘d2 has the advantage that if 1...♗xe3 2.♘c4 wins.
If 1.♗c4 ♗xe3 2.♗xf7† ♔xf7 3.♕f3† regains the bishop. But Black can play 2...♔d8 instead, and the position can get a bit messy.
03:00 1.♘a3, with similar ideas to ♘d2.
04:00 1.♕h5 ♗xe3 2.♘a3 also seems possible.
05:45 1.♕h5 ♗xe3 2.♘a3 ♗xd4 3.♘c4 ♗xc3† 4.♔d1 ♕a4† But I am worried this may go badly for White.
06:10 In general, I think White has to come up with a developing move: either 1.♘d2 or 1.♗c4.
07:00 I don't really like 1.♗c4. So it's either 1.♘d2 or 1.♘a3.
07:30 1.♘d2 I guess also allows me to go ♘b3 in some lines.
09:00 If 1.♘d2, Black can play 1...♕c7 and I still have a problem with my e-pawn. But then I could play 2.♕f3 and castle queenside, and maintain a lead in development.
10:30 Quite a difficult position to assess. But I go with **1.♘d2**.

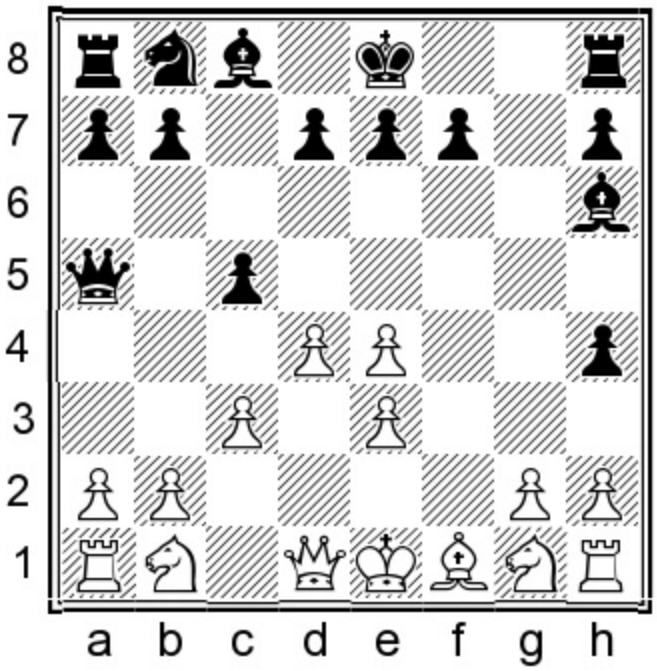
Evaluation: +0.3

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019

1.d4 ♘f6 2.♗g5 ♘e4 3.♗h4 c5 4.f3 ♕a5† 5.c3 g5 6.fxe4 gxh4 7.e3 ♗h6
We have arrived at the puzzle position.



A sharp scenario, which many players will correctly identify as a Trompowsky with ♗h4, one of the few variations in that opening which I have never tried from White's side. A paradoxical feature of the Tromp is that while the apparent aim is to swap the dark-squared bishop for Black's knight, often it works best when White ends up retaining that piece, as Black takes measures to avoid that exchange.

Here White needs to assess the position, and realize that careful development is the key – bearing in mind that all White's pieces are still at home, while the black bishop and queen are out and about. White should also take care of the sensitive dark squares. If White manages to mobilize cautiously, the clump of pawns in the middle of the board will be a reason for long-term optimism. Importantly, White has a tactical trick to accelerate development by defending e3 indirectly.

8.♘d2!

This is the best way to craftily cover the loose pawn.

8.♕f3? was played in the game, but bringing the queen into action is not an immediate priority. Moreover, it impedes the knight from coming to its best square, and allows Black to viciously exploit the vulnerable dark squares. 8...cxd4! 9.exd4 ♕g5! The black queen has swept across the 5th rank, achieving domination over a key diagonal, which makes it extremely difficult to counter the threat of ...♕c1†. (The game continuation of 9...♘c6 is less incisive.)

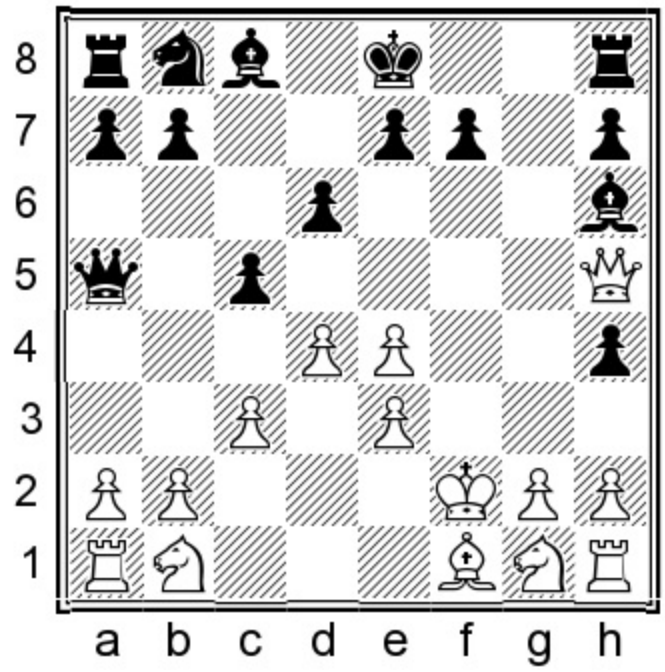
8.♘a3 is similar to 8.♘d2, but the more central square is superior, as it blocks the bishop's diagonal to allow the possibility of long castling later.

8.♕d2 creates an awkward self-pin and loses important time.

8.♕d3 ♕b6! hits another vulnerable pawn on a dark square.

8.♘f3 is met by 8...♗xe3 9.♗c4 cxd4 when White is unable to castle, leaving insufficient compensation.

8.♔f2 d6 9.♕h5? fails to the neat tactic:



9...♗xe3†! And if 10.♔xe3 cxd4† Black picks up the queen.

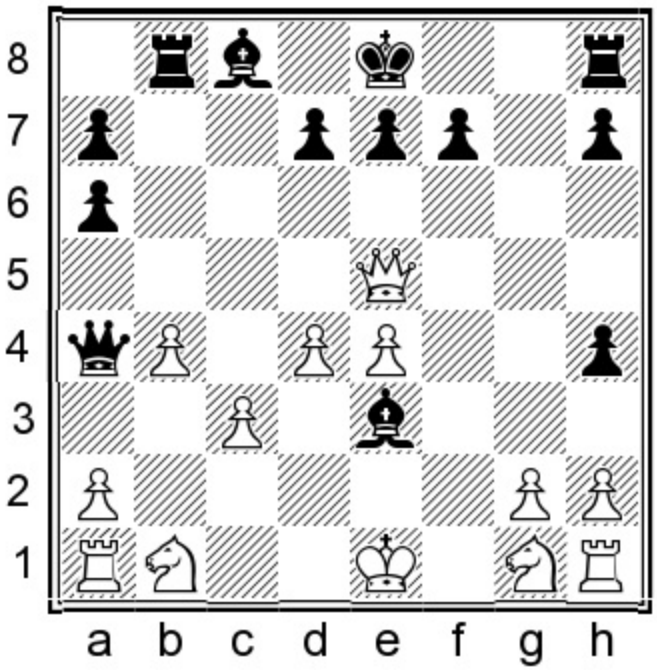
Direct attacking attempts rebound, as there are too few White pieces developed to succeed. For instance: 8.♗c4? ♗xe3 9.♕f3 (9.♗xf7† ♔d8! is an important point; the black king is quite safe, while Black has ideas of ...♖f8 and White's central dark-square control is disintegrating.) 9...cxd4 10.♕xf7† ♔d8 Black is much better.

The other direct attacking try is:
8.♕h5? ♗xe3 9.b4

9.♗c4 ♕b6! (9...e6?! 10.♘a3 is dangerous for Black) 10.♕xf7† ♔d8 11.♕g7 ♖e8 12.♗f7 ♕xb2 13.♗xe8 ♕xa1 and White's king is in more trouble, as Black's can slip away to safety via c7.

Keith mentioned the text move as a possibility, but White is in trouble after:
9...♕a4! 10.♕xc5

Or 10.bxc5 ♕c2 with decisive threats.
10...♘a6 11.♗xa6 bxa6 12.♕d5 ♖b8 13.♕e5



13...0-0 14.♕xb8 ♕c2

Black has a crushing initiative, for instance:

15.♘f3 ♕f2† 16.♔d1 d6!

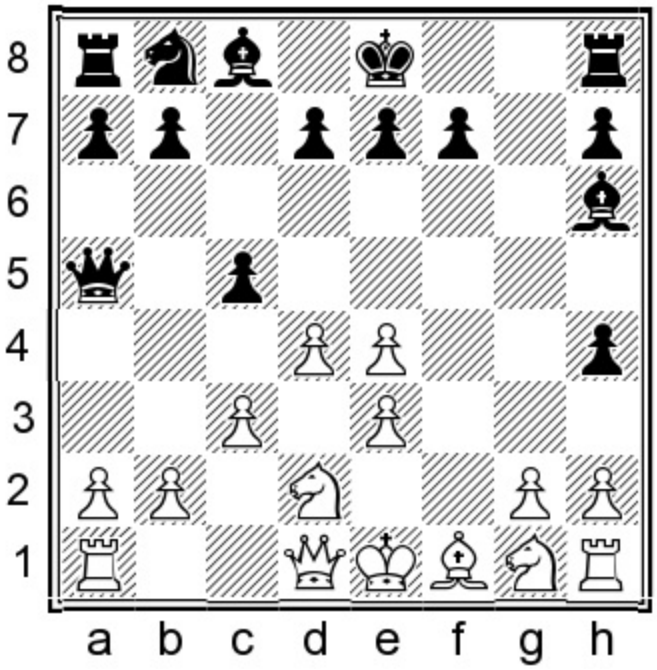
Cutting off White's queen before capturing on g2.

17.♘bd2

17.♕xa7 ♕xg2 wins.

17...♗g4

With decisive threats.



8...cxd4

8...♗xe3?? 9.♘c4 wins the bishop.

If 8...d6? the position on the board has been totally transformed. Now that White has stabilized the centre, the swift kingside attack beginning with 9.♕h5! is crushing. Time is a huge factor, and now almost all of White's moves come with tempo. 9...♗g7 (9...♗xe3 loses to 10.♘c4 again) 10.♗c4 0-0 11.♘gf3 ♘d7 12.♘g5 ♘f6 13.♗xf7† ♔h8 14.♕xh4+– Black's position is in ruins.

8...b5 9.a4 ♗xe3 10.axb5 ♗xd2† 11.♔xd2 is pleasant for White, as mentioned by Keith.

Black should play either the text move or 8...♕b6 9.♘c4 ♕g6 when White's more compact position is slightly preferable.

9.exd4 d6 10.♘gf3

White maintains a small edge due to the better pawn structure.

Scoring for Puzzle 4

Best move	Score	Evaluation
1.♘d2	**10**	**+0.65**
1.♘a3	8	+0.5
1.♕d2	2	0
1.♕d3	2	0
1.♕h5	1	–0.3
1.♘f3	1	–0.3
1.♗c4	1	–0.6
1.♕f3	1	–1.7
1.Others	1	

Bonus points for correct evaluation

Between –0.09 and +0.09	1 point
Between +0.10 and +0.29	2 points
Between +0.30 and +0.89	**3 points**
Between +0.9 and +1.39	2 points
Between +1.4 and +2.49	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I play the Trompowsky a lot, as I don't have much time to study, and prefer to get out of mainstream opening theory. Here on move 8, I was already out of book, and thought I had a massive advantage thanks to my strong centre and my plans to use the bishop and queen to facilitate an attack on f7. As often happens, at least to me, I failed to find the right move due to over-optimism.

I have tested this puzzle with over a dozen players of different levels. Nobody below Elo 2300 found the best move. Most players were as bullish as I was, and thought there were many good attacking moves that would give White an advantage. The most popular choices were 1.♕h5 and 1.♗c4.

Whereas all club players opt to go for the attack, stronger players sense a certain degree of danger from being underdeveloped. I was surprised when I witnessed how all the strongest players, notably

the IMs and GMs, focused their attention on defending the e3-pawn instead of playing for the initiative, and all came up with the stealthy 1.♘d2! or 1.♘a3!?.

Adams Insight

In this position there was a tendency to underestimate the dangers associated with the weak dark squares, and to get carried away with White's attacking potential. Ignoring the fact that White has no pieces developed, and that Black's active queen and bishop could easily cut White to ribbons if care is not taken, is unwise. White should look to consolidate rather than go on the offensive. White's strong centre is certainly valuable in the long term, but this doesn't mean the development issues can be ignored.

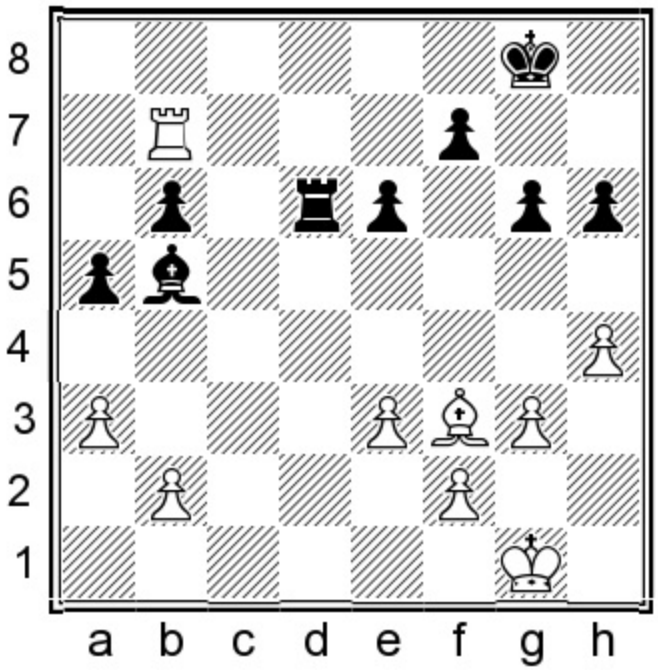
Looking at the comments; Phil says "8.♘d2 seems too slow." He then decides: "I am going for 8.♕f3. It puts immediate pressure." McCumiskey recommends 8.♕h5 instead, but with exactly the same comment! Perhaps they were also not so aware that in some circumstances where White has jettisoned material, Black can allow a capture on f7 and hide the king on d8 where it will be relatively safe on a dark square.

Perhaps this is a weakness that you overcome as you get stronger, as the anonymous solver remarks with excellent self-awareness: "I shouldn't overestimate my position. I've done this in the past, and paid the price."

Positions 5-8

Order and Chaos

Puzzle 5



Black to play – Level 9

Show/Hide Solution

Puzzle 5 – Fighting Against Prejudice

Anonymous
Elo 2305

00:45 White seems to have the upper hand. Black is kind of passive, although he is defending okay at the moment. Hmm. Let's see.

01:30 I am looking at 1...♖d2 2.♖xb6 ♖xb2.
03:00 Let me check this line carefully, because it's a bit risky. Unless I have a tactical shot, I am fighting for a draw.
04:45 1...♖d2 2.♖xb6 ♖xb2 *(Player thinks.)* It's a tricky line. 3.♖b8† ♔g7 4.a4! ♖b1† 5.♔h2 ♗d3 6.♖a8 winning the a-pawn, although still not perfectly clear who is better.
05:00 White doesn't have a clear winning plan either. Black could play 1...a4 as its first move. Fixing the b-pawn.
06:30 He could also play 1...♔g7. In this position, I feel a specific move is not so critical. Although I think 1...a4 seems to be the better option.
07:00 I'll play slowly and improve my position: **1...a4**
09:00 It still remains a tricky endgame. Still, I go for 1...a4 and try and play ...♖d2 at the right moment.

Evaluation: White is probably slightly better. (+0.2)

Julio Granda
Elo 2630

01:00 The position looks equal, maybe a bit better for White. If the bishops are swapped, the position becomes even more uncomfortable for Black.
02:00 Now I seem to like Black better! I have a plan to attack the pawn on b2.
02:30 An interesting idea is to play ...♗c4 and place my queenside pawns on b5 and a4, and then play ...♖d2 attacking the b2-pawn. The white king is too far away to prevent this entry.
03:00 I would start by playing 1...♗c4.
05:00 1...♗c4 2.♖c7 ♗b3 (I can't play 2...b5 because of 3.a4.) The plan now is to play 3...a4 and ...b5 with a comfortable advantage. But there must be a good move for White that I have to find.
(The board is turned around, as Julio was seeing it from White's perspective.)
Oh, now I see 1...a4 is even better.
05:30 1...a4 2.♖c7 (to prevent ...♗c4) 2...♖d2 3.♖b7 ♖xb2 4.♖xb6 ♖b3 and it looks like Black is better here.

1...a4

Evaluation: –0.5

Michael Adams
Elo 2701

01:00 Black's rook is tied to the defence of the b6-pawn at the moment.
02:00 I am wondering if it is a good idea to play 1...♗c4 with the idea of playing ...b5 and keeping the pawn protected. This would free the rook.

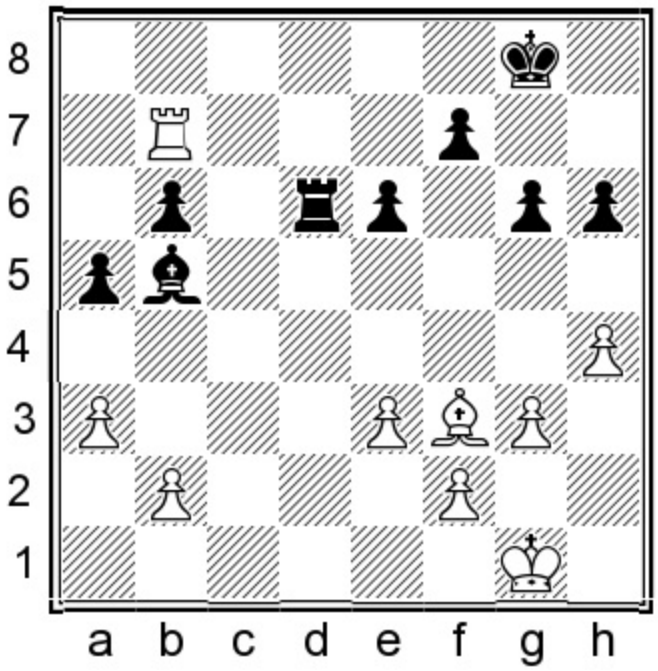
02:30 It is difficult to improve Black's king position significantly.
03:00 After 1...♗c4, it is not so clear what White's plan is. If he tries to improve his king with 2.♔g2, there is 2...a4.
It may even be possible to play 1...a4 first, followed by 2...♗c4.
03:50 Although it feels strange to put the pawn on a light square, the same colour as our bishop.
04:40 1...♗c4 feels more flexible.
04:50 1...♗c4 2.b4 a4 followed by ...b5 is more active for Black.
07:00 After 1...♗c4 White could play 2.♖c7! ♗b3 3.♖c6, trying to swap rooks and aiming for a draw.
08:00 1...a4 2.e4 seems the best try for White. 2...♖d2
09:00 After 1...a4, White may try throwing in h5 and g4-g5, but it doesn't seem to change the position much.
10:00 White's bishop really doesn't have many squares.
10:30 I think **1...a4** is the best move. With the idea of ...♗c4, ...b5 and ...♖d2.

Evaluation: –0.8

Deeper Analysis by Michael Adams

Hikaru Nakamura – Magnus Carlsen

Abidjan (blitz) 2019



With reduced material this position initially looks balanced, but Black's pieces work together much better. In contrast, White's pieces are quite remote from one another. Although White's bishop controls a lot of space, a lot of it is unimportant empty territory, whereas Black's bishop crucially

prevents White's king from entering the game via f1, as well as the regrouping move ♗e2. This gives Black a free hand to secure his pawns on the queenside, at the same time fixing White's structure there as a liability.

1...a4!

This was one of the few positions I recognized (not including the ones from my own games!). I didn't remember the next move, and in fact my choice here wasn't played in the game, although the idea did occur later on. However, I did recall the players and the result, which could have served as a bit of a clue. Black's problem is that his rook is tied to the defence of the b6-pawn, so the text move initiates a three-move plan to secure Black's a- and b-pawns and give the rook the right to roam. Black intends ...♗c4 followed by ...b5, putting pawns on the same-colour square as the bishop. This is often unwise in a pure bishop endgame, but here the presence of rooks changes the equation. The pawn on b2 can be attacked by the black rook. White's pieces are not combining well, and can't easily find a way to work together. Neither White's bishop nor the rook has many useful moves available, when you begin thinking about it.

1...♔g7

Carlsen's choice in the game. It's not a bad move, but is not urgent enough – although at a fast time limit Nakamura missed a few chances to obstruct Black's correct plan.

2.♔g2

2.b3! would have prevented Black's plan and thus secured the white queenside.

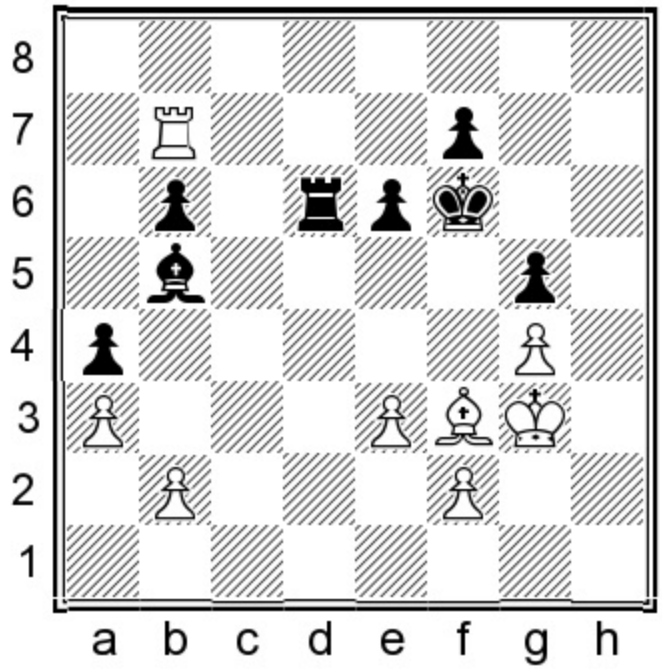
2...♔f6

2...a4! was correct of course.

Both players miss the same improvement on the next move as well.

3.g4 g5 4.hxg5† hxg5 5.♔g3 a4!

Finally Carlsen hits on the correct plan, although here it is more practical than strong – Hikaru could have resisted more effectively.



6.♗g2?

6.♖c7! prevents the bishop from coming to c4, and after 6...♖d2 7.♖b7 White should hold.

Another decent option is 6.♗e4!? ♗c4 7.f4, creating counterplay.

6...♗c4 7.♗e4 b5

Now White is in trouble again.

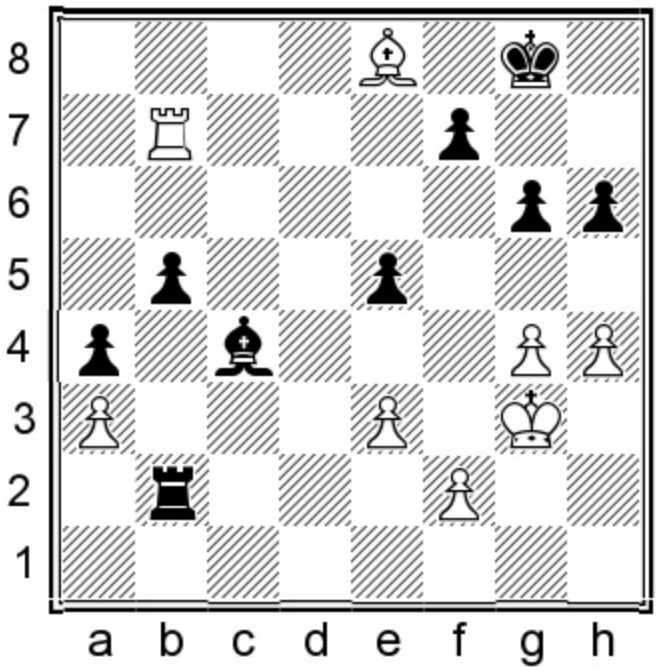
8.f4 e5 9.♖c7 exf4† 10.exf4 ♖d2 11.♖c6† ♔g7 12.fxg5 ♖xb2 13.g6 ♖b3† 14.♔f4 ♖xa3 15.gxf7 ♖a1 16.♖c8 ♗xf7 17.♖c7 a3 18.♔g5 ♖d1 19.♗c2 ♖c1

White resigned.

2.e4!

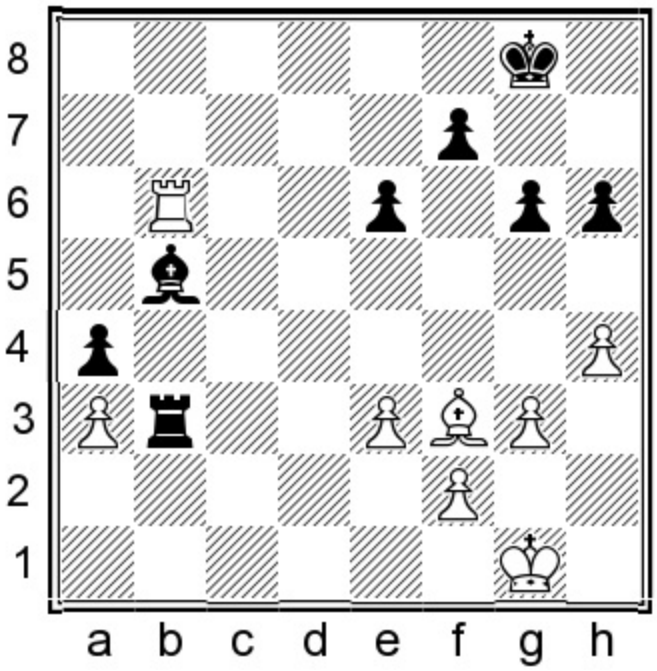
This looks strange, but White must recognize the need to create a diversion in a hurry. If Black is allowed to complete his plan, White will have serious problems.

If White doesn't sense the danger and continues casually with something like 2.♔g2? ♗c4! he is already in deep trouble. 3.g4 b5! With everything secure on the queenside, ...♖d2 is coming and the b-pawn will be history. It is striking how the three-piece unit of bishop and queenside pawns is so powerful, as the pieces effectively reinforce each other. Black is already winning, for instance: 4.♔g3 ♖d2 5.♗c6 ♖xb2 6.♗e8 e5



Black's bishop secures the sensitive f7-point. Meanwhile Black has picked off one pawn and is ready to go after the one on a3, so White's situation is virtually hopeless.

White could also try to prevent Black's plan with 2.♖c7, but after 2...♖d2 3.♖b7 ♖xb2 4.♖xb6 ♖b3! White is really struggling for a move. The only chance is:



5.♗d1! (5.♔g2? ♗f1†–+; 5.♗a8? ♗d3–+) 5...♖b1 6.♔h2 ♖xd1 7.♖xb5 ♖d3 This is similar to the endgame arising in our main line after 2.e4. 8.g4 ♖xa3 9.♖a5 I think White should still hold here, but the line with 2.e4 seems more forcing.

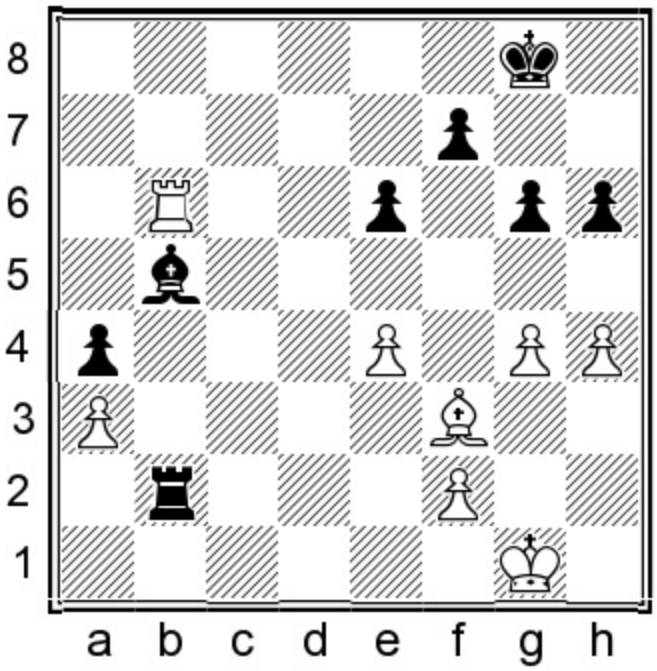
2.♖a7 ♖d2 (2...h5!? is another option) 3.♖b7 ♖xb2 transposes to 2.♖c7 above.

2...♖d2

2...e5 allows 3.h5 g5 4.♗g4 and now the 4...♗c4 plan is less effective due to 5.♗d7! with sufficient counterplay.

3.♖xb6 ♖xb2 4.g4!

4.♔g2? ♗f1† wins.



4...♖b3

4...♔g7!? is tricky, but 5.g5 h5 6.♔h2! ♖xf2† 7.♔g3 ♖b2 8.♔f4 saves the day for White.

5.♗d1

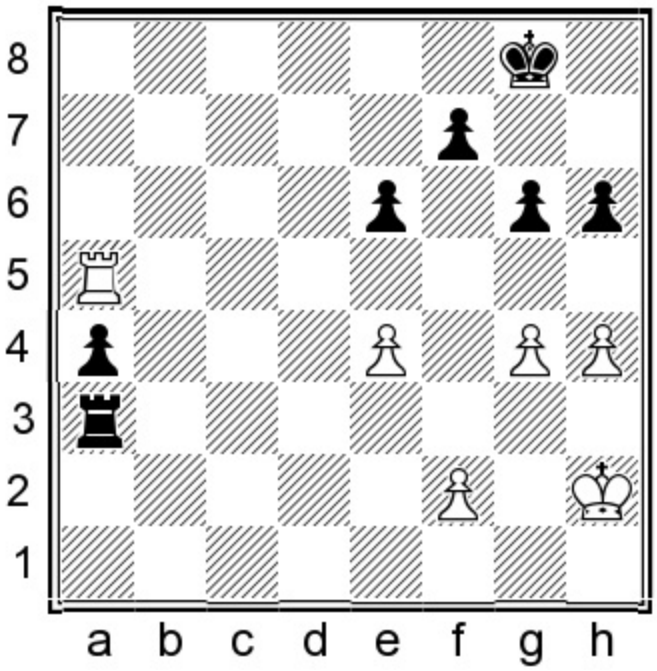
This leads to an unappetizing position a pawn behind. However, heading towards a rook-and-pawn endgame is White's best chance to save the game.

5...♖b1 6.♔h2

6.♔g2? loses to the familiar 6...♗f1† of course.

6...♖xd1 7.♖xb5 ♖d3 8.♖a5 ♖xa3

A detailed analysis of this endgame is a bit beyond the scope of this book, but one possible defensive plan that looks good enough to me is to try and box in the black king, so it has no chance to get active.



9.g5!

9.♖a8† ♔g7 10.g5 is similar.

9...♔g7

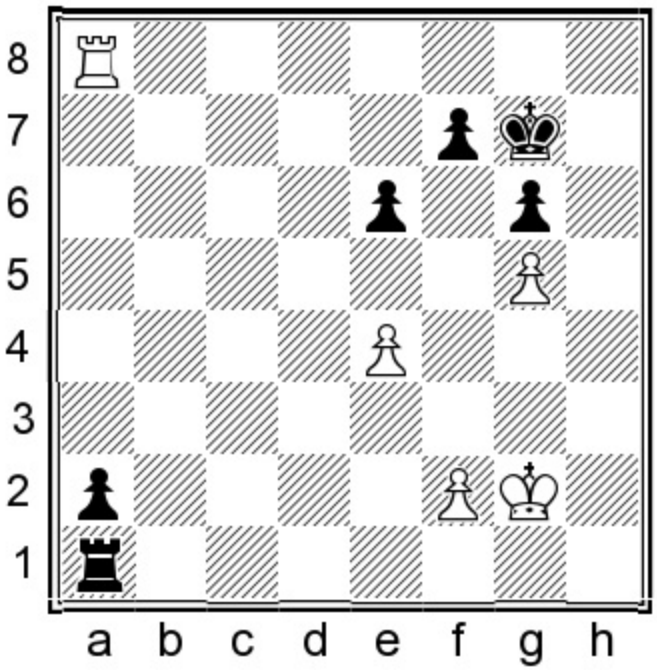
Both 9...h5 10.♖a8† ♔g7 11.♔g2 and 9...hxg5 10.♖a8†! ♔g7 11.hxg5 make progress extremely unlikely due to Black's king being boxed in.

10.♔g2 ♖a1 11.♖a8 a3 12.♔h2 a2 13.♔g2 hxg5

13...♖e1 14.♖xa2 ♖xe4 15.♔g3 isn't enough to win.

13...h5 14.e5! leaves Black with nothing better than 14...♖e1 15.♖xa2 ♖xe5 16.♔g3, which should be an easy draw.

14.hxg5



14...f5 15.♖a7† ♔f8 16.♖a8† ♔e7 17.♖a7† ♔d6 18.exf5 exf5 19.♔f3 ♔c5 20.♔f4 ♔d4 21.f3 ♔d3 22.♖a8

With Black's king having nowhere to hide from the checks, the position is a draw.

Scoring for Puzzle 5

Best move	Score	Evaluation
1...a4	**10**	**–0.8**
1...♗c4	1	–0.1
1...h5	1	0
1...♔g7	1	0

Bonus points for correct evaluation

Between –0.10 and –0.29	1 point
Between –0.30 and –0.59	2 points
Between –0.6 and –0.89	**3 points**
Between –0.9 and –1.39	2 points
Between –1.4 and –2.49	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

1...a4 is a particularly difficult move to find, because it goes against the old adage of "don't put your pawns on the same colour square as your bishop." I don't know of any weak player or club player who found this move. It does not even fall inside our radar.

Kudos if you found this clever move, and planned the concrete manoeuvre Black has in mind. I am guessing you are a 2300+ Elo player.

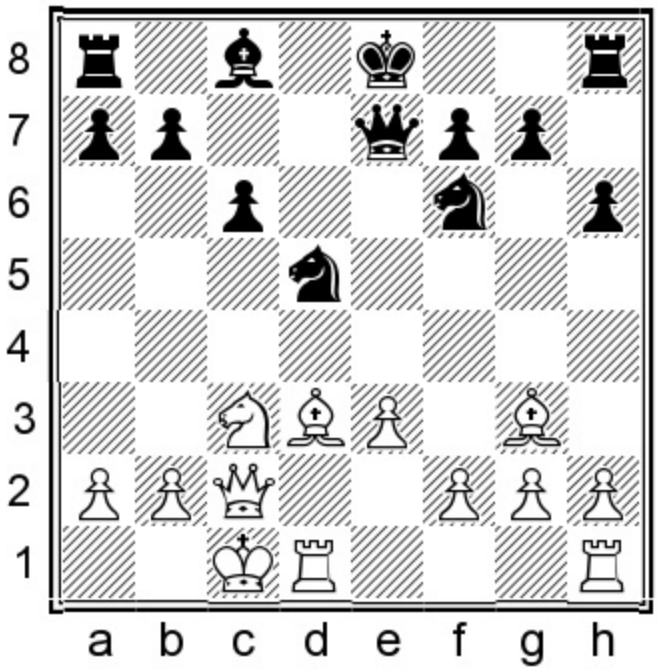
Adams Insight

It's important to realize how few useful moves White has available. Black can use this freedom to construct a handy short-term plan to improve the position, consolidating the queenside to secure the weak b-pawn, thus freeing up the rook to target the pawn on b2. Pawns on the same colour as your bishop can often be a problem if they obstruct the scope of your bishop. In this case, after ...a5-a4, ...♗c4 and ...b6-b5, the only weak point is the pawn on b5 which can't be successfully attacked, and the bishop on c4 still plays an active role as well. In some circumstances after a future ...e6-e5

advance, it can even guard the f7-pawn to thwart White's counterplay.

If Black is able to complete the desired plan, the queenside will be secure, leaving White without any way to protect the b2-pawn against the threat of ...♖d2.

Puzzle 6



White to play – Level 7

Show/Hide Solution

Puzzle 6 – Pruning Too Soon

Taran Jina
Elo 1912

00:10 Black is underdeveloped. White has the d-file to play for. I'd give White the advantage in this position. 1.♘b5 looks fun, with the ideas of ♘d6† and ♘c7†.

02:15 1.e4 dislodges the knight, which might be useful.

04:00 Ah! There may be a queen trap: 1.♗c4, with the idea of ♗d6. This is possibly dangerous for Black.

05:00 This looks like a very standard position. So in a game I would probably play something quite natural.

06:00 Black's 1...♘b4 can be quite annoying.

1.♘b5 is still quite tempting: 1.♘b5 cxb5 2.♗xb5† ♗d7 3.♗xd7† ♔xd7 (or 3...♕xd7) 4.e4, pinning the knight.

07:30 However, Black may play 2...♔f8. Still. I feel 1.♘b5 might be the right move here.

08:00 In the game, I would quite likely play 1.♘a4 with the idea of ♘c5, or 1.a3 to stop ...♘b4.
09:00 1.♖he1, 1.e4 and 1.♖d2 also seem okay.
12:45 Still thinking of ♘b5. 1.♘b5 cxb5 2.♗b5†, but 2...♔f8 is good. And it feels like I sacced too many pieces.
13:20 I'd play 1.a3 with a slight advantage for White.

Evaluation: +0.6

Andrew McCumiskey
Elo 2017

00:30 We've castled queenside, and are now ready for launching an attack. I don't have the centre though. I've got a bishop for a knight which is good. He is threatening 1...♘b4. I don't like this position for myself.
If 1.♘xd5 ♘xd5, Black is still threatening ♘b4.
01:20 I would try and keep my two bishop advantage, so a move to consider is 1.♗c4. He then can hack down with 1...b5.
02:00 He has to castle also at some point. Black can also play 1...♗g4 attacking my rook, and I can't intercept with 2.f3? as that would allow 2...♘xe3. Yeah, he has got a lot of options. This position is not bad for Black.
03:00 I don't like the idea of 1.♘xd5.
04:00 Hmm. 1.e4 looks like the initial move here. Can I play it straight away?
04:40 Let's see: 1.e4 ♘b4 No. I don't want him to take my bishop.
05:40 I might have to play ♗c4 first: 1.♗c4 ♘b6 That still doesn't give me the centre.
07:00 What move are your cunning grandmasters looking at? 1.♘b5 maybe!?

07:05 No. That is rubbish.
08:00 1.e4!? Immediately? 1.e4 ♘b4 2.♕a4 Then he just takes my bishop and I don't have anything.
09:00 1.♘a4? Or some other obscure move? I'll play solid. 1.♗c4. It's not very dynamic or exciting, but at least saves the bishop and puts pressure on Black.
09:30 1.♗c4 ♗e6 2.e4 and kick his knight away.
10:00 Yeah. I go for 1.♗c4. Not even a +0.5 advantage as my king is exposed. He can castle kingside and play ...b5 and ...b4. White has played a rubbish opening. It's like when you ask an Irishman for directions to get somewhere. He will always start by saying: "You should have never started from here!" White should have not gotten himself into this position.

Evaluation: +0.25

Anonymous
Elo 2305

00:40 White has the bishop pair, and Black hasn't castled. We should look for something "explosive".
01:15 Black has the threat of 1...♘b4.
02:00 Let's see. Okay, I want to determine if 1...♘b4 is a real threat. 1.e4 ♘b4 Queen moves, say 2.♕a4 ♘xd3† 3.♖xd3 and the threat of ♗d6 is very annoying as it prevents Black from castling.
03:30 The knight on d5 is quite strong. But I don't think it helps me to exchange it as the other knight can replace it.
06:00 1.e4 looks like quite a good move, but it is tricky to evaluate. Let's have a closer look: 1.e4 ♘b4 2.♕a4 looks aggressive. 2...♘xd3† 3.♖xd3 and Black can't castle. This should be advantageous for White.
07:00 Actually, here Black may castle, as after 3...0-0 4.♗d6 ♕d7! the queen is hitting the rook on d3, preventing the bishop from taking on f8.
08:00 1.e4 ♘b4 2.♕e2! is better. 2...♘xd3† 3.♖xd3 and now Black definitely cannot castle.
10:00 It is difficult for Black to defuse all the threats after 1.e4. Maybe he can try something different: 1.e4 ♘xc3 2.♕xc3 0-0 But I keep the bishop pair and play 3.♗c2, reinstating the ♗d6 threat.
11:00 1.e4 seems to be the move that causes Black the most problems.
11:30 The alternative option 1.♗c4 0-0 is not what I am striving for.
1.e4 ♘xc3 2.♕xc3 0-0 3.♗c2 ♘xe4? 4.♕e3 f5 5.f3 and White is much better.
I'd play **1.e4**.

Evaluation: +0.6

Keith Arkell
Elo 2429

00:20 No idea which opening this is from. I have a preference for positions with a pawn majority on the kingside. The first thing that catches my attention is that Black threatens 1...♘b4.
02:30 What happens if I play e4? 1.e4 ♘b4 2.♕a4 Now Black cannot take the bishop because of ♖xd3, which prevents Black from castling because of the cheapo ♗d6. Black could play 2...0-0 first though.
02:45 So maybe 1.e4 is not that good.
03:00 Before I can threaten e4, I need to clear some pieces from the d-file.
03:30 1.a3 looks too overprotective.
04:00 I like 1.♗c4. Clearing some stuff from the d-file.
05:00 1.♗c4 ♗e6 Is my bishop now loose on c4? The idea of playing ♗c4 is to soften the d5 square and clear the d-file.

06:00 1.e4 ♘b4 2.♕b3 ♗e6!; and if 2.♕a4, which looks good, there is 2...a5, threatening ...b5, and my queen is buffeted about.
07:00 So back to 1.♗c4 again: 1.♗c4 b5 Should I sac? Maybe not.
08:00 Hang on! What about 1.♘xd5 ♘xd5 2.e4 ♘b4 3.♕a4? No. This is the same.
09:00 My move is **1.♗c4**. I talked myself into it.

Evaluation: +0.55

Michael Adams
Elo 2701

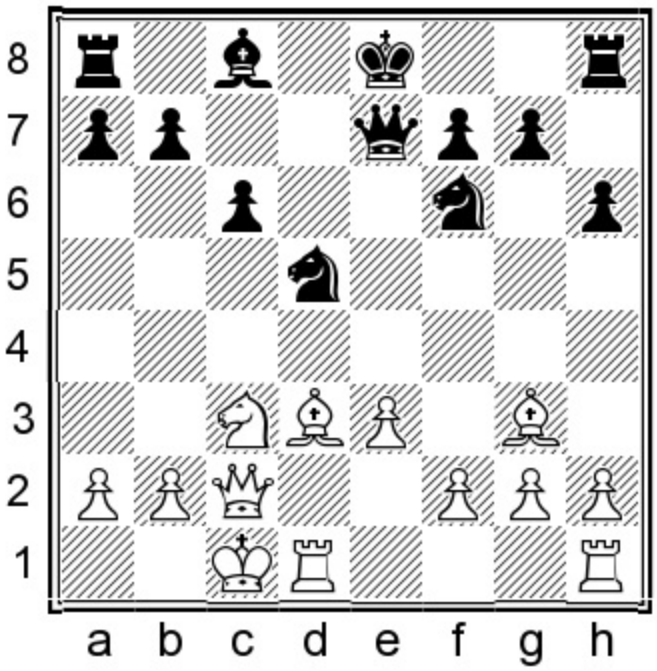
00:20 White has the pair of bishops and a lead in development.
00:30 Black could play ...♘b4 and exchange one of the bishops by taking on d3. But there are ♗d6 ideas then.
01:05 If 1.♘xd5 cxd5 we would have an IQP (isolated queen pawn) structure.
01:35 The position looks pleasant for White.
01:50 If White goes 1.e4 immediately, it looks like Black is in danger of losing material.
02:50 1.e4 ♘b4 2.Queen somewhere (say, 2.♕e2) 2...♘xd3† 3.♖xd3, and ♗d6 is coming.
03:40 Let's see if Black doesn't take on d3: 2...0-0 3.♗c4 Threatening again ♗d6.
04:00 1.♘xd5 ♘xd5 2.♗c4 could be played.
06:30 1.e4 ♘xc3 2.♕xc3 0-0 is a tough position for Black to play. There are many moves available to White. Including 3.♗c2.
08:00 1.e4 ♘b4 2.♕e2 ♗e6 3.♗c4 or 3.♗b1, and ♗d6 is a big threat.
08:45 I think **1.e4** is the best move.

Evaluation: White is clearly better, with an advantage close to a full pawn. (+1.0)

Deeper Analysis by Michael Adams

Hurtado Philip – N.N.

Internet (blitz) 2019



A typical situation where it's easy to settle for the lazy, instinctive move 1.a3 which reduces the advantage, but if White takes the time to calculate without prejudice, it's clear that there are more potent possibilities available. The weak square on d6 is a recurring problem for Black, once the knight on d5 is challenged.

1.e4!

White's advantages are the bishop pair and a temporary lead in development. To make the most out of the former it is necessary to take resolute, concrete action. Softer continuations reduce the advantage.

1.♖he1 is playable, but it is not yet clear if this is the best square for the rook. 1...0-0 2.♘xd5 ♘xd5 3.a3 The game goes on, but White has not made the most of the previous advantage.

1.♗c4 isn't that constructive, as after 1...0-0 capturing on d5 is not a good idea: 2.♗xd5 ♘xd5 3.♘xd5 cxd5 4.♖xd5? ♗e6 wins for Black.

1.♕d2 and now it is worth considering two possible responses:

a) 1...0-0 2.♘xd5 cxd5 (2...♘xd5?! 3.e4 ♘b4 4.♗b1 ♕c5† 5.♕c3 ♕xc3† 6.bxc3 ♘a6 7.♗d6 ♖e8 8.f4 gives White a big advantage – the powerful bishop dominates the sidelined knight.) 3.f3 ♗e6 4.♔b1 With a pleasant position for White.

b) 1...♗e6! is more precise, and after 2.e4 ♘xc3 3.♕xc3 0-0 White has lost time compared to the immediate 1.e4.

1.a3 0-0 2.♘xd5 cxd5! leaves White's king awkwardly placed. (2...♘xd5 3.e4 transposes to the analysis of 1.♘xd5 below.) 3.♔b1 (3.f3 ♘h5!? is interesting, with the idea of 4.♗f2 ♗h3!.) 3...♘e4 Black intends ...♗f5 next and is not doing too badly.

1.♘xd5!? is also not a bad option, forcing Black to commit to a recapture on d5. 1...♘xd5 (1...cxd5 2.♕a4†! ♗d7 3.♕d4 followed by ♗e5 is very pleasant for White.) 2.a3! (2.e4 ♘b4 is less clear here.) 2...0-0 3.e4 White drives the knight back and keeps a decent advantage.

1...♘xc3

This swap isn't desirable from Black's point of view, but the concession is necessary in order to get castled.

1...♘b4 There is a tendency to instinctively prevent Black swapping a bishop like this, but here this is not relevant, as the idea rebounds due to 2.♕e2 ♘xd3† 3.♕xd3 which leaves Black's king hopelessly stranded in the centre due to 3...0-0 4.♗d6.

1...♘b6 is met by 2.♗e2! and again ♗d6 can't be prevented – White's bishop will really take centre stage on the d6-square. Normally if a minor piece is planted so deeply in the opponent's camp, and it can't be quickly challenged or chased away, this spells trouble.

2.♕xc3 0-0

An interesting alternative is:

2...♘h5!?

Trying to trade off the bishop makes some sense, and at least challenges White to play precisely.

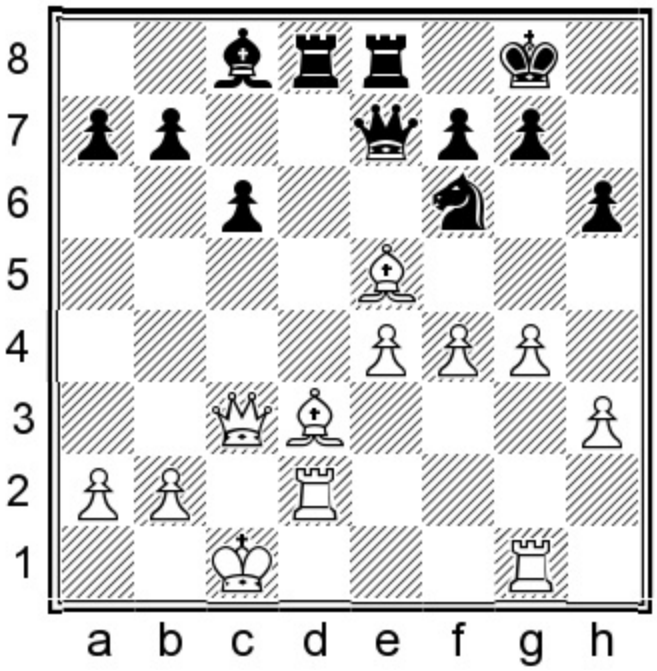
3.♗e5 0-0

3...f6? has a surprising tactical flaw: 4.♗d6! ♕xd6 5.e5 fxe5 (5...♕e7 runs into 6.♗g6† ♔f8 7.♗xh5) 6.♗e2 ♕f6 (or 6...♕g6 7.♕xe5†) 7.♗xh5† ♔f8 (7...g6 is no better due to 8.♗xg6† ♕xg6 9.♕xe5†) 8.♖he1 Black's disconnected rooks will be too late to enter the game. 8...♕g5† 9.♖d2 ♕xh5 10.♖d8† White wins.

4.♖hg1!

Preparing to launch the g-pawn.

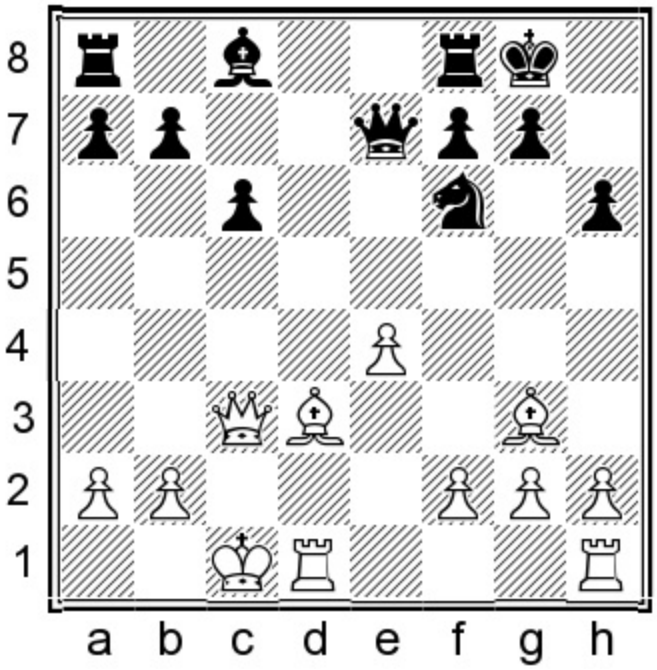
4...♖e8 5.f4 ♗g4 6.♖d2 ♖ad8 7.h3 ♗c8 8.g4 ♘f6



9.♔b1!

After this final consolidating move, White is ready for g4-g5 with a huge attack.

9.g5?! ♖xd3! 10.♖xd3 (10.♕xd3? ♕c5† shows why the king should go to b1 first, and 11.♔b1 ♕xg1† 12.♖d1 ♕h2 13.gxf6 g5! is better for Black) 10...♘xe4 is unnecessarily complicated.



3.♗c2!

Threatening ♗d6 is the most energetic and challenging approach.

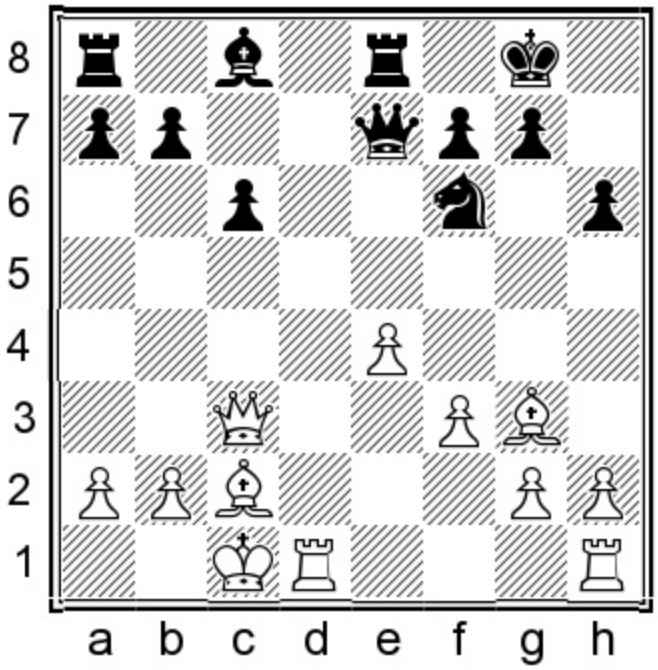
3.f3 also favours White though.

3...♖e8

3...♘xe4? 4.♕e3 ♖e8 5.♖he1 ♗f5 6.f3 ♘xg3 7.♕xe7 wins for White.

4.f3!

The most precise, although 4.♗d6 ♕e6 5.a3 ♘d5 6.♕g3 is also pretty good.



4...♗e6 5.♗d6 ♕d8 6.g4

Followed by a kingside pawn storm, which will be extremely tough for Black to meet.

Scoring for Puzzle 6

Best move	Score	Evaluation
1.e4	**10**	**+1.4**
1.♘xd5	5	+0.6
1.♖he1	5	+0.5
1.♕d2	5	+0.5
1.a3	2	+0.2
1.♗c4	1	–0.2

Bonus points for correct evaluation

Between +0.30 and +0.59	1 point
Between +0.6 and +0.89	2 points
Between +0.9 and +2.49	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

If you show this position to a beginner, who has not been taught that bishops are better than knights, they will invariably play 1.e4!, kicking the black knight away from its dominant position. However, I rejected the immediate 1.e4, because it contravened one of the tenets I learnt early in my chess education, and wanted to prevent the knight jumping to b4, thus preserving my precious bishop on d3. I could not believe my eyes when I analysed the game afterwards and saw the computer gave 1.e4 an evaluation of +1.4.

I tested this position with many of my friends at Solihull Chess Club, wondering how many of them would dare to play 1.e4. As it happens, none of them played it either, and they rejected it for similar reasons to me.

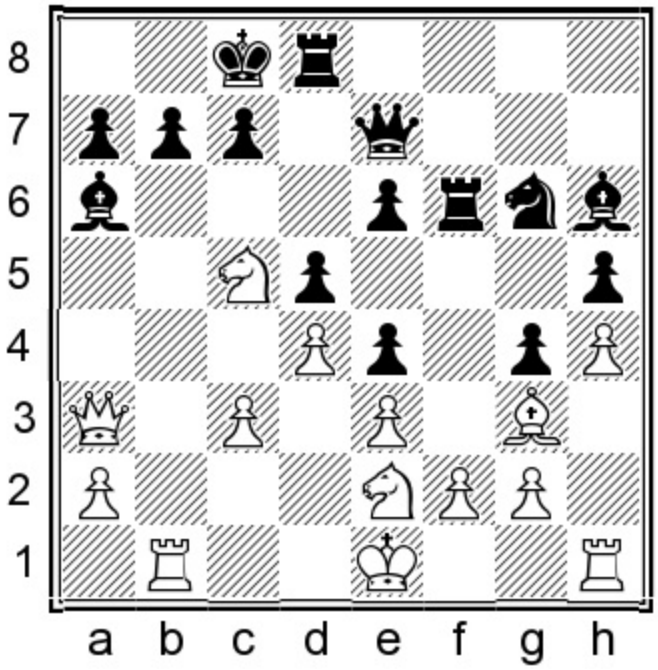
I was even sceptical that Michael Adams would end up playing it, as I thought savvy Super-Grandmasters would not allow their bishop to be taken either.

Adams Insight

A good test of work rate, where 1.a3 feels like an instinctive, sensible precaution to maintain the bishop pair, but this is just lazy calculation. McCumiskey says “Let’s see: 1.e4 ♘b4 No. I don’t want him to take my bishop.” He needed to continue this line just a few more moves, to see that if the bishop on d3 is captured, its colleague could land on d6 later, and that he shouldn’t be worried by this outcome – in fact quite the reverse. The anonymous solver worked through this variation very logically and efficiently in his thought process.

The fact that the black king has lingered in the centre a little too long is important here. This factor has to be exploited immediately, to open up the position and clear room for White’s bishops, and get the maximum from the position.

Puzzle 7



White to play – Level 3

Show/Hide Solution

Puzzle 7 – Easy To Miss

Tabitha Ryan (age 11)
Elo 1100

00:50 The b-pawn looks quite weak. If the bishop on a6 is removed then there is an attack on the b-file.

01:30 Knight takes bishop is a possibility: 1.♘xa6 bxa6 Then I gain an open file for my rook.

02:36 If the black queen moves away, there is an attack on c7 with the bishop on g3.

03:22 Could you play 1.♘xb7 ♗xb7 2.♕xa7?

04:49 Could I play something like 1.♕xa6 bxa6 2.♖b7?
07:20 In a game I would play: 1.♖xb7 ♗xb7 2.♕xa7 Threatening mate on b7!

Evaluation: White is winning

Alex Lawrence (age 12)
Elo 1285

00:35 My first thought is 1.♘xa6, but I don't want to move my knight because that would let his king come out via d7.
01:45 Rook takes b7 looks quite good: 1.♖xb7 ♗xb7 2.♕xa7 He'll find it hard to solve the mate threat (♕xb7#).

02:15 1.♖xb7

Evaluation: I think it wins.

Anshul Swamy (age 11)
Elo 1300

00:22 I am thinking of taking the bishop with my knight: 1.♘xa6 bxa6 2.♕xa6† ♔d7
00:23 Oh, no. I can't play 1.♘xa6 because of 1...♕xa3.
00:58 I am thinking of some sacrifice around the king.
01:03 If I could get Black's king to be on b8, then 1.♕xa6 would work.
01:22 I am thinking of 1.♖xb7 ♗xb7 2.♕xa7 and mate next move.
03:24 I'll revise that. If 1.♖xb7 doesn't work I would try 1.♕b4 to have my queen protected and then play ♘xa6.
04:09 My first move is: 1.♖xb7 ♗xb7 2.♕xa7 Threatening ♕xb7 mate. If the black rook on d8 moves anywhere, to allow space for the king to move out of mate, I can play 3.♕xb7† ♔d8 4.♕b8 mate.
04:12 To stop the mate he has to take my knight. But if he plays 2...♕xc5 3.♕xc5 wins.
04:15 My move is **1.♖xb7**. If he takes the rook it is probably mate or +10.
04:25 And if he doesn't White is better.

Evaluation: +2.0

Andrew McCumiskey
Elo 2017

00:40 Complicated. 1.♘xa6 would give me a knight for a bishop. My horrible f2-pawn is under attack. I have a queenside attack going. My knight is pinned, so I can't take the bishop at the moment.

01:00 His kingside attack is not threatening. I don't think he has any crazy threats.
01:05 Let me look for attacking moves. 1.♕xa6 bxa6 No.
01:30 Ah! What about 1.♖xb7? Now he's in trouble!
01:40 Yes, 1.♖xb7 ♗xb7 2.♕xa7 and at least I take his bishop back, as 2...c6 doesn't work because of 3.♕b8 mate.
01:55 Yeah, **1.♖xb7**. This is winning for White.

Evaluation: >+3.0

Michael Adams
Elo 2701

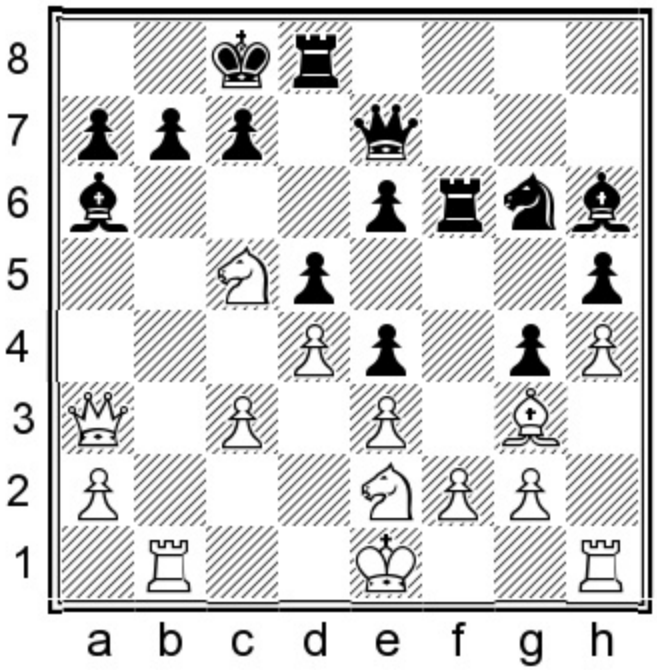
00:15 The tactical idea of 1.♖xb7 looks immediately tempting.
00:55 1.♖xb7 ♗xb7 2.♕xa7 and 2...c6 is not possible. There is 3.♕b8 mate. 2...♖df8 is also not possible. There is mate in two. So, Black has to give up his queen. This should be a win for White.
02:30 Just checking the variations:
1.♖xb7 ♗xb7 2.♕xa7 ♖d7 3.♕xb7† ♔d8 4.♕b8 mate. And if 2...♕xc5 3.♕xc5 there is no counterplay.
03:10 Yeah, **1.♖xb7**.

Evaluation: Computers like the queen a lot, so I'd say: +3.0

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Birmingham 2018

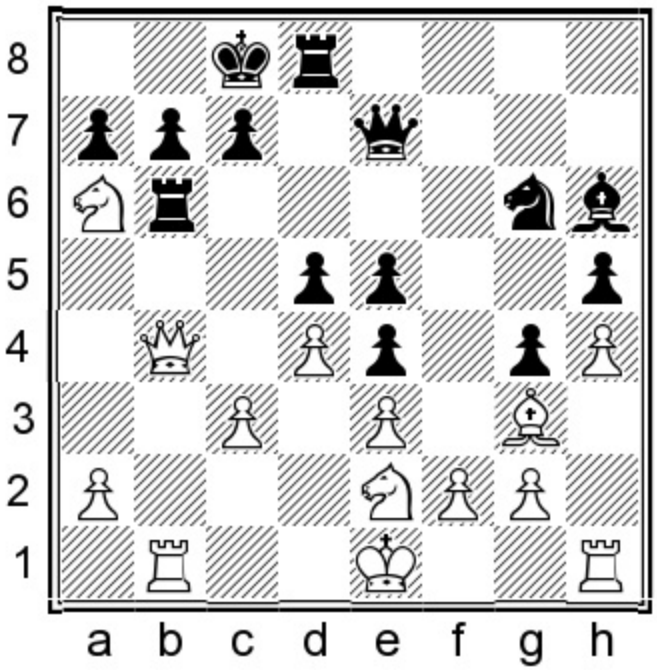


Black's king is in trouble, and destroying the pawn cover in front of it is key. There aren't many pieces in the vicinity of Black's king, apart from the awkwardly placed bishop on a6, so not much finesse is required.

1.♖xb7!

Opening up the queenside is crushing. Once spotted, the variations aren't complicated to calculate. The balance of attackers and defenders is firmly on White's side.

1.♕b4? is the move Phil played in the game, not sensing the tactical opportunity. 1...e5! 2.♘xa6 ♖b6! is the best defence, when play continues:



3.♕xe7 ♖xb1† 4.♔d2 ♖b2† 5.♔c1 ♘xe7 6.♔xb2 bxa6 7.♗xe5 It is only a bit better for White.

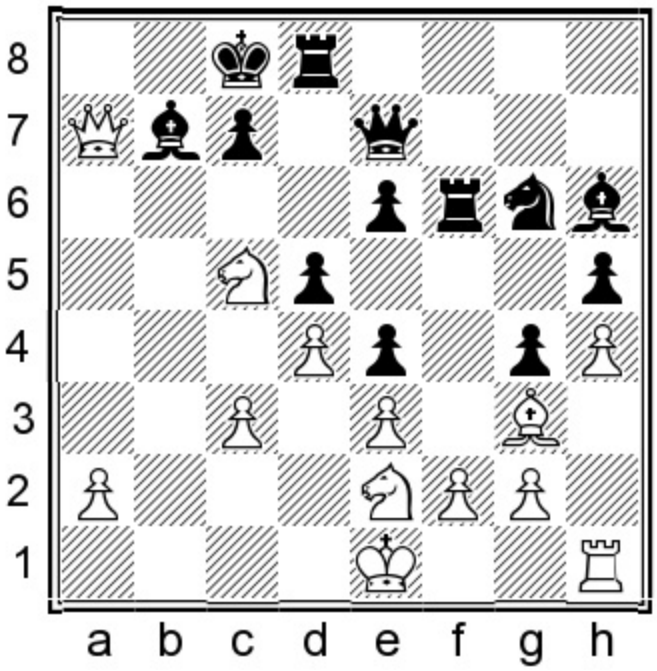
1.♘xa6?? was frequently mentioned in the comments and 1.♘xb7?? was also suggested, both of which overlook 1...♕xa3.

1.♕b3 is good but less devastating than the main line after 1...e5 2.♘xa6 ♖b6 3.♘b4 a5.

1.♕b2 is similar to 1.♕b3 above.

The computer gives 1.0-0 as the second strongest move, but only because 1...e5 2.♖xb7! is the intention.

1...♗xb7 2.♕xa7



The well-known complimentary attacking combination of queen and knight, aided by some long-range assistance from the bishop on g3, is crushing. Defenders are sadly lacking from Black's point of view. The bishop cannot escape without it being lost.

2...♕xc5!

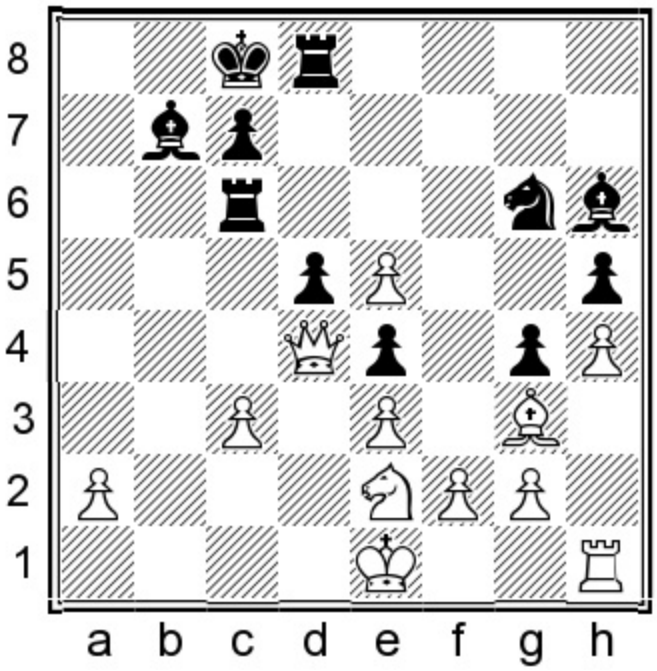
Only this move enables Black to struggle on for a bit.

The details of 2...c6 3.♕b8# and 2...♗c6 3.♕a6† ♔b8 4.♕xc6+– seal Black's fate.

3.♕xc5 e5!

This gives Black some coordination.

4.dxe5 ♖c6 5.♕d4



The massive changes in the position have given Black a glimmer of hope, as the black pieces have gained some scope. However, the cost in terms of extra material has been high, and the queen should convert fairly easily.

5...♗a6 6.♕a7! ♖b6 7.e6

The threat to c7 prevents any counterplay.

7...♗b7 8.0-0 ♖xe6 9.♖b1

White wins.

Scoring for Puzzle 7

Best move	Score	Evaluation
1.♖xb7	**10**	**+3.5**
1.0–0	4	+2.3
1.♕b3	3	+1.6
1.♕b2	3	+1.5

Bonus points for correct evaluation

Between +0.9 and +1.39	1 point
Between +1.4 and +2.49	2 points
More than +2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

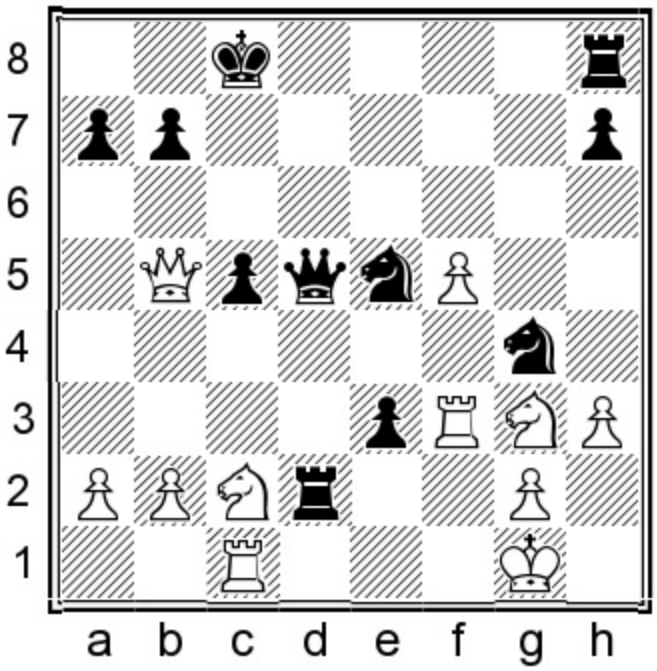
I played 1.♕b4 here, not even suspecting it was "White to play and win". The funny thing is that if I were shown this position as a puzzle, I definitely would have found 1.♖xb7, as most of the players I showed it to do.

Adams Insight

Tabitha and Alex both did well to solve this position, but skirted the cliff edge in their calculations, as they considered 1.♘xb7 or 1.♘xa6, or both for some time, without realizing both these moves leave White's queen unprotected!

The imbalance between attackers and defenders is the biggest hint that there is a tactical possibility available. Once the queenside pawn structure is breached, matters are fairly straightforward. Weight of numbers in the relevant sector of the board is often a reliable indicator when considering if an attack can succeed.

Puzzle 8



White to play – Level 10

Show/Hide Solution

Puzzle 8 – Entering Super-GM Territory

John Green
Elo 1563

01:00 Black is threatening 1...♖d1†. My initial move would be 1.♘xe3, which threatens the queen and protects the d1-square.
01:30 So my immediate move would be 1.♘xe3. Let's see if there are other moves.
01:45 1.♘xe3 ♘xf3† 2.gxf3 ♕xf3 3.Rook or Queen x c5†
02:00 I am going for **1.♘xe3**.

Evaluation: +1.0

Jesús Cao
Elo 2060

00:30 There is equal material. My opponent's position looks overwhelming.
01:30 My first impression is that I have to defend. I could have a lot of problems in this position. Black is threatening 1...♘xf3†. If it were Black to play, I am totally lost.
01:45 I have the idea of moving my knight so I can attack the c5-pawn. For instance, 1.♘xe3.
02:00 Black is also threatening 1...♖d1†, killing me instantly. My candidate moves are: 1.♘xe3,

1.♘e4, 1.♘e1. So let's analyse a bit.
05:00 If I take the knight with 1.hxg4 then 1...♕xf3 kills me.
05:15 If I play 1.♘e1 or 1.♘xe3, Black's attack is unstoppable. My impression is that I am in dire straits.
08:00 I am calculating 1.♘xe3, threatening the c5-pawn. 1.♘xe3 ♕xf3 2.♕xc5† looks strong for me. At least I have many checks.
14:00 I have rejected 1.♘b4, because of 1...♘xf3† 2.gxf3 ♕xf3.
15:00 1.♘xe3 ♘xf3† 2.gxf3 ♕xf3, doesn't work because of 3.♕xc5†.
I would play 1.♘xe3.

Evaluation: +0.50

Harriet Hunt
Elo 2414

00:30 We are definitely trying not to lose here.
01:00 The saving moves I am looking at are: 1.♘d4, 1.♘xe3 and 1.hxg4.
02:00 1.hxg4 removes one of the attackers, but it doesn't solve the problem of 1...♕xf3 2.gxf3 ♘xf3† followed by mate.
05:00 I am really struggling with this position. If I were White in a game, what would I play? I almost feel I'll end up resigning in two moves, whatever I play.

18:00 1.♘xe3 ♖xg2† 2.♘xg2 ♘f3† 3.♔f1 (forced) 3...♘gh2† All this looks incredibly "touch and go".
22:00 Really stuck with this one. Trying to eliminate at least one variation.
24:00 The problem here is that I haven't found a forced mate for Black to any of my three defensive options, which makes it even harder, as I cannot rule out any of them.
25:00 1.♘xe3 ♖xg2† 2.♘xg2 ♘xf3† 3.♔f1 ♘gh2† 4.♔f2 But I am sure Black will find something here.
27:00 I'd probably play 1.♘d4. This seems the least likely option to get mated immediately. If 1...♘xf3† I could play the exchange down and at least have a passed f-pawn.
28:30 Yet after 1.♘d4, Black could even play something simple like 1...♔b8 and still be better.
29:00 Anyway, 1.♘d4.

Evaluation: –1.0

Renier Vazquez
Elo 2551

00:05 This is a more disorderly position. Let me think.

00:45 My first impression is that White is totally lost. White needs to find some incredible move to save the game. My first idea is to try and use the c-file for a counterattack. With that in mind the first moves I would look at would involve moving the knight. Maybe 1.♘e1 – this would put immediate pressure on c5.
01:00 There are other possible moves to consider as well: 1.♘xe3 and 1.♘b4.
01:30 The first move I would look at would be 1.♘e1.
03:00 1.♘b4 means moving my pieces further apart from the king, which cannot be good. I also have to worry about the immediate threat of 1...♖xg2†, which looks devastating.
03:15 1.♘e1 would be my first choice so far.
04:00 1.♘e1 both defends against the treat of ...♖d1† and opens the attack on c5.
04:30 1.♘e1 ♘xf3† 2.♘xf3 ♖d1† Causing a massive problem!
(Thinks in silence for a while.)
06:50 I am looking at 1.♘e1 ♘xf3† 2.gxf3.
07:45 The other alternative is 1.♘xe3, but 1...♖xg2† and the accounts don't tally up.
08:00 *(Goes into deep thought.)*
16:00 I will stick to 1.♘e1 ♘xf3† 2.gxf3. I am now attacking c5, and Black's best option is perhaps 2...b6, after which I can take the knight on g4. This is the most complicated problem you have given me so far.

Evaluation: +1.0

Michael Adams
Elo 2701

00:25 Black threatens ...♖xg2†. Which leads to mate.
00:30 1...♘xf3† is also a problem.
01:00 It looks like White needs some tactical trick based on moving the knight on c2.
1.♘b4? ♖xg2†! wins for Black.
01:30 The other options: 1.♘xe3, maybe 1.♘e1.
01:50 1.♘xe3 looks pretty close to mate after 1...♖xg2†.
02:05 1.♘e1 At least this has the merit that it defends the rook on f3.
02:40 1.♘e1 ♘xf3† and now I can't take back with the knight because of 2.♘xf3 ♖d1†. So I have to play 2.gxf3.
03:30 1.hxg4 also has to be checked as a possible defence.
04:00 1.hxg4 doesn't seem possible.
05:45 So the only try I am seeing is 1.♘e1. Although let's check 1.♘xe3 again:
08:00 1.♘xe3 ♘xe3 2.♕xc5† should be okay for White.
08:30 1.♘xe3 ♘xf3† 2.gxf3 *(thinking)*
11:00 1.♘e1 ♘xf3† 2.gxf3 b6 3.hxg4 and the position is hard to assess.
13:00 1.♘e1 seems safer, but I feel I should remove the pawn from e3. 1.♘xe3 ♖xg2† 2.♘xg2 (forced) 2...♘xf3† 3.♔f1 ♘d2† 4.♔e1 The only move that doesn't lose immediately, and the white

queen is preventing 4...♖e8†. So it is not so clear how to proceed.
16:00 I don't really trust either move.
1.♘xe3 seems it may lead to a draw, but looks very dangerous.
After 1.♘e1 there seems to be no immediate catastrophe, but the position looks quite messy.
18:00 Not really sure what move to play. But I'm going to go for 1.♘e1 in the end, as I feel that after 1.♘xe3 I am missing something strong for Black and might be losing.
20:00 Black should be at least okay after 1.♘e1, but the next few moves are going to be critical. I'd say the best line is 1...♘xf3 2.gxf3 b6 3.hxg4 and White is not doing badly. Seems like a level position.

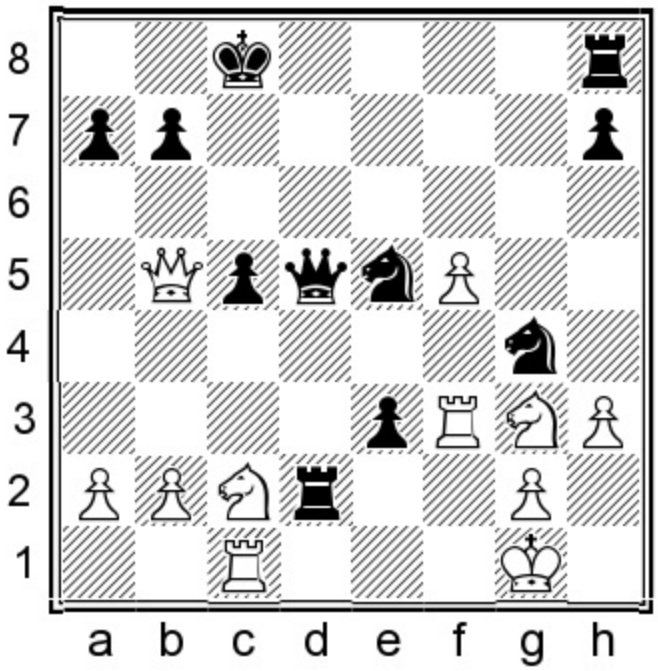
1.♘e1

Evaluation: 0.0

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



White's kingside looks to be at the point of imminent collapse, but there is a glimmer of hope in the fact that moving the knight from c2 to shore things up will also unveil an attack on the c5-pawn. There is only one move to hold things together.

1.♘e1!

The knight now defends two key squares, g2 and f3, preventing any immediate breakthrough

while uncovering an attack on the c5-pawn, as well as creating a barrier on the first rank.

1.♘b4? ♖xg2† 2.♔xg2 ♕xf3† mates in two.

1.♘e4? ♘xf3† 2.gxf3 ♖xc2 3.♖xc2 ♕d1† wins easily.

1.♘d4? is an imaginative try suggested by Harriet, but the knight protects f3 rather more securely from e1. 1...♘xf3† 2.gxf3 (2.♘xf3 transposes to the incorrect 2.♘xf3? in the notes to the main solution) 2...♕xd4 Black simply wins on material.

1.hxg4?

This is one of the obvious tries, but it's not good enough.

1...♘xf3†!

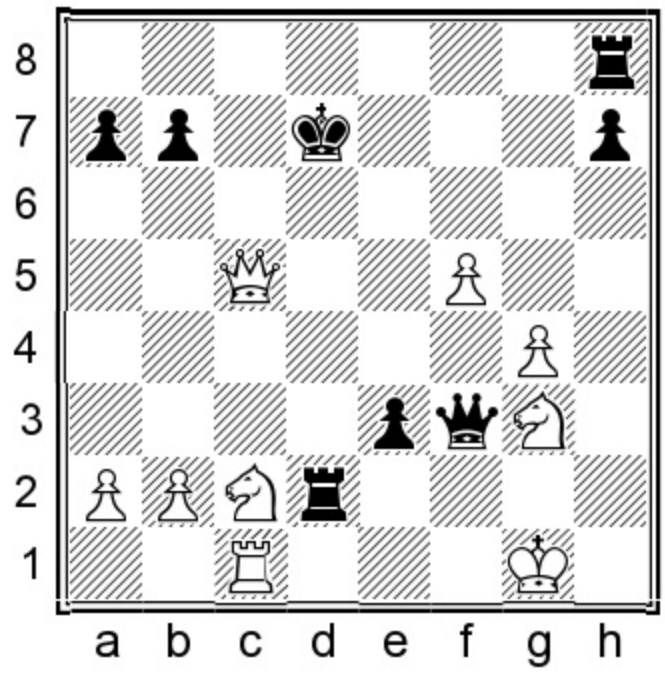
1...♕xf3? leads to a pretty finish if the queen is captured, but 2.♕xc5† throws a spanner in the works. (2.gxf3?? obviously loses to 2...♘xf3† and mate next move.) 2...♕c6 3.♘xe3 Re-establishing a rough material balance.

2.gxf3 ♕xf3 3.♕xc5†

3.♘e2 enables Black to finish the job with checks: 3...♕xg4† 4.♔h1 ♕f3† 5.♔g1 ♖g8† and wins.

3...♔d7

3...♔b8?? 4.♕e5†! would lead to the opposite result.



4.♕c7†

Or 4.♕b5† ♔d8 5.♕a5† b6 and White is out of checks.

4...♔xc7 5.♘d4† ♕c6

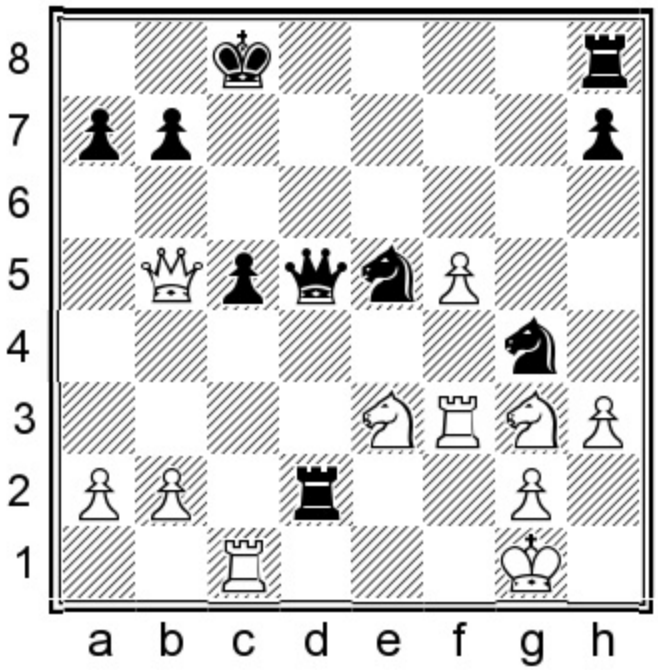
Interposing the queen maintains a substantial material plus.

6.♘xc6 bxc6

Black is not only the exchange up, but also has a powerful pawn on e3 and rook on the seventh rank, so the win is easy.

1.♘xe3?

This also uncovers an attack on c5, but allows Black to open up White's king with checks. This was generally distrusted, but justifying your intuition with variations is far from simple.



1...♖xg2†!

a) 1...♕xf3 2.♕xc5† (but not 2.gxf3?? ♘xf3† and mate next move) 2...♕c6 is only unclear.

b) The game continued 1...♘xf3† 2.gxf3 and things went out of control over the next few moves – it's an extremely complicated position to play with little time.

b1) First, the game continuation: 2...♕d6? 3.♘ef1? (3.♕xc5† ♕xc5 4.♖xc5† ♔b8 5.hxg4 ♖xb2 6.f6 ♖xa2 7.♘e4+–) 3...♖d1? (3...♕d4† 4.♔h1 ♘f2† 5.♔g2 ♘e4† 6.♔h1 ♕f2–+) 4.♖xd1 (4.♕xc5† ♕xc5† 5.♖xc5† ♔d7 6.hxg4+–) 4...♕xd1 5.hxg4 (5.♕xc5†! ♔d7 6.fxg4+–) 5...♕d6 White lost on time in this winning position.

b2) 2...♕xf3?! is tempting but White can win with a precise sequence: 3.♕xc5† ♔d7 4.♕b5†! The only winning move. 4...♔e7 (4...♔d8 5.♕a5† ♔e7 6.♖c7†+–) 5.f6†! ♘xf6 6.♘gf5† ♔e6 (6...♔d8 7.♕a5† and 6...♔f7 7.♖c7† ♔g6 8.♘h4† both win for White too) 7.♕b3† ♘d5 (7...♔e5 8.♘c4† wins) 8.♘g7†! ♔f7 (or 8...♔f6 9.♘xd5†) 9.♖f1 White wins.

b3) 2...♘h2! is one of two drawing moves: 3.♘xd5 ♘xf3† 4.♔f1 ♘h2† leads to perpetual check.

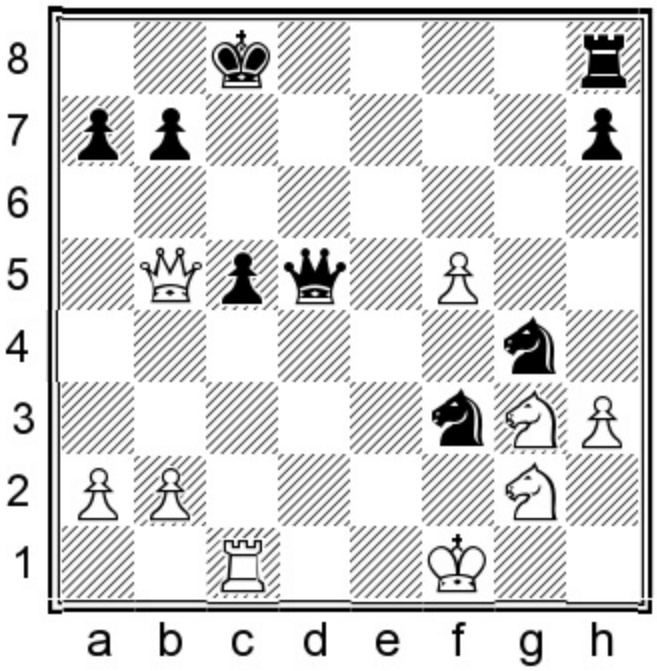
b4) 2...♘e5! 3.♘xd5 ♘xf3† draws in the same way.

2.♘xg2

2.♔xg2 ♕xf3† 3.♔g1 ♕f2† 4.♔h1 ♕h2 is mate.

2...♘xf3† 3.♔f1

3.♔h1? can easily be ruled out as a possible defence due to 3...♘f2#.



3...♘d2†

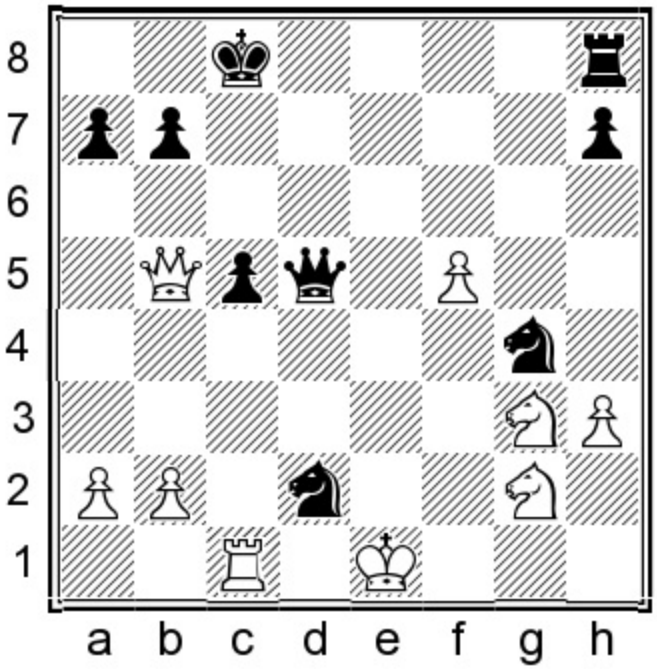
3...♘gh2†? 4.♔f2 ♕d2†? 5.♘e2 covers the rook and turns the tables.

3...♘fh2†!? is an alternative winning move. 4.♔e1 Now Black needs to secure the king: 4...♔b8! (4...b6! 5.hxg4 ♕xg2 6.♖c3 ♘f3† also works.) 5.hxg4 (5.♖xc5 ♕xg2 and 5.♕xc5 ♖e8† are also hopeless for White) 5...♕xg2 Black wins.

4.♔e1

4.♔g1? loses simply: 4...♕d4† 5.♔h1 ♘f2† 6.♔g1 ♘d3† 7.♔h2 ♘xc1–+

After the text move it is necessary to stay cool and secure the black king before continuing the attack. It's not easy to appreciate this from a distance when considering the puzzle position.



4...♔b8!

Tucking the king away to a safe spot.

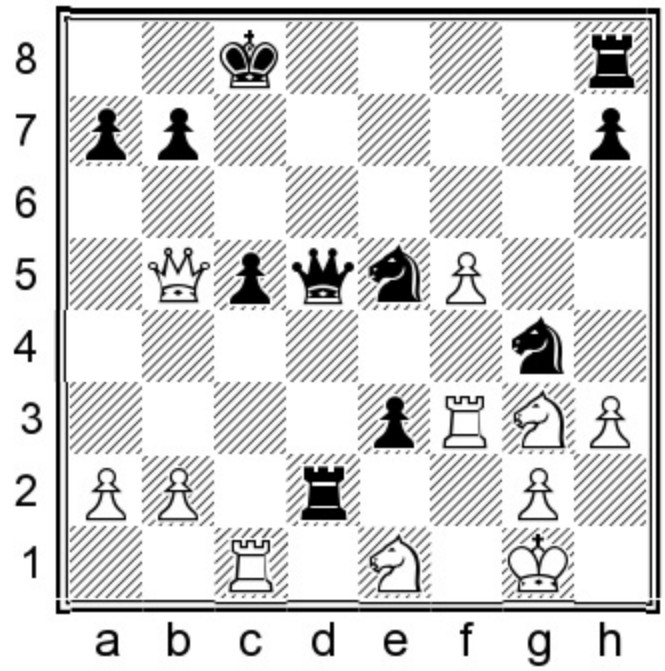
4...b6! is also good enough. 5.hxg4 ♕xg2 6.♖xc5† bxc5 7.♕xc5† ♔b7 8.♕e7† ♔a8 Black avoids perpetual check and wins.

5.♕xc5

5.hxg4 ♕xg2 is hopeless for White.

5.♖c3 ♘f3† also wins for Black after any of 6.♔f1 ♕d1†, 6.♔e2 ♘d4† or 6.♖xf3 ♕xf3.

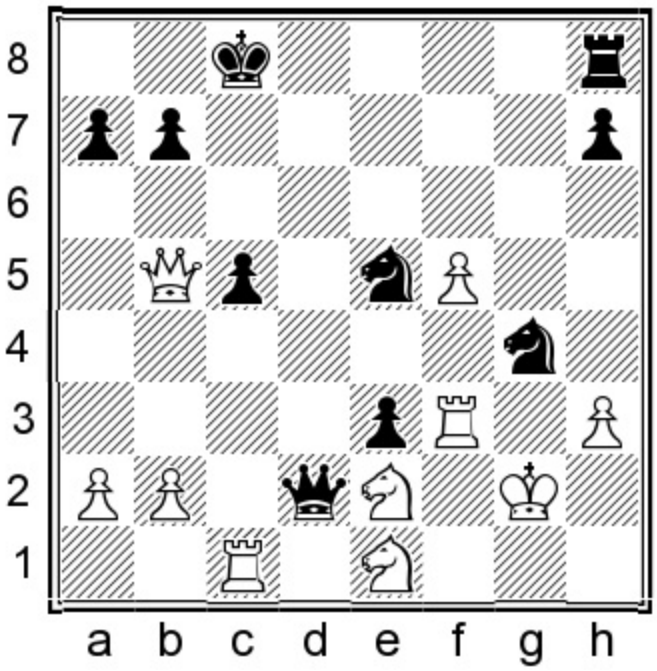
The text move is the only other try, but moving the queen allows Black's rook to enter the game: 5...♖e8† 6.♔d1 ♘f2† 7.♕xf2 ♘b3† 8.♔c2 ♕c4† 9.♔b1 ♕xc1 mate!



1...♘xf3†!

Also forced.

1...♖xg2†? 2.♔xg2 ♕d2† 3.♘e2! defends the king, and now White is ready to go on the offensive:



3...♘xf3 4.♕xc5† ♔d7 5.♕c7† ♔e8 6.♕b8† ♕d8 (6...♔f7 7.♖c7† ♔f6 8.♕xh8†+–) 7.♖c8 ♘xe1† 8.♔f1 White wins.

2.gxf3!

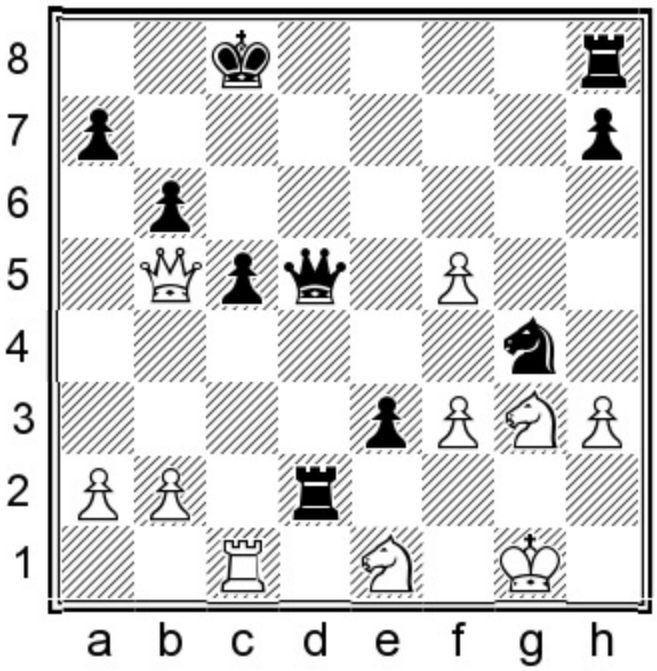
Another only move.

2.♘xf3? ♖d1† 3.♖xd1 ♕xd1† 4.♕f1 (or 4.♘f1 e2) 4...e2 Black has other options, but this is the easiest way to mop up. 5.♘xe2 ♕xf1† 6.♔xf1 ♘e3† 7.♔f2 ♘xf5–+

2...b6

2...♔b8?! 3.hxg4 is less impressive as Black still needs to deal with the threat to c5.

The text move is best, securely defending the pawn on c5. The resulting position is not easy to assess. Once the knight is captured White will have a small material edge, but with lots of major pieces scattered around the board, both kings exposed and the dangerous pawn on e3 to take into consideration, play is razor-sharp. With correct play, the game tends to burn out to a draw.



3.hxg4

3.fxg4!? leaves the kingside looking scarily airy, but is objectively perfectly playable. 3...♕d6! is the best reply, when the two knight moves 4.♘e2 and 4.♘f1 are of roughly equal strength. It leads to some crazy computer lines, all of which end in perpetual check or an equal endgame after accurate play.

Although the lines after 3.fxg4!? are interesting, it is hard to imagine any human player choosing to play that way. We will focus on the text move, which keeps White's king as well covered as possible.

3...♕d6

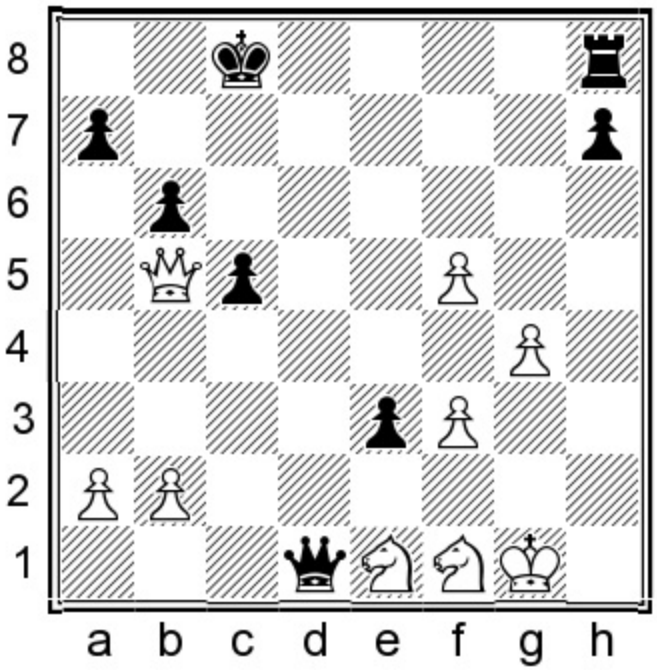
3...h5!? 4.♕b3! (4.♘xh5 ♕d6 5.♘g2 ♖xg2† 6.♔xg2 ♕d2† 7.♔g3 ♕xc1 8.♕c6†=) 4...♕xb3 5.axb3 hxg4 6.fxg4 ♖h4 7.♖c3 ♖xg4 8.♖xe3 ♖xb2 9.f6±

4.♘f1

4.♘e2 h5 5.g5 ♕d5 looks rather dangerous to me, although the computer still assesses it as equal.

4...♖d1 5.♖xd1 ♕xd1

Now there are a few logical ways for the game to end in perpetual check.



6.♘d3

Another drawing line is: 6.♕c6† ♔b8 7.♕e4 ♕xe1 8.♕e5† ♔b7 (8...♔c8 9.♕xh8† ♔b7 10.♕xh7† ♔a6 11.♕d7 ♕f2† 12.♔h1 ♕xf1† 13.♔h2 ♕f2† 14.♔h3 ♕xf3† 15.♔h4 e2 16.♕a4† ♔b7 17.♕d7† leads to the same result) 9.♕e4† ♔c7 10.♕e7† ♔c6 11.♕e4† ♔b5 12.♕d3† c4 13.♕d7† With perpetual check.

6...e2 7.♕c6† ♔b8 8.♕d6† ♔b7 9.♕d7† ♔a6 10.♘xc5† bxc5 11.♕c6† ♔a5 12.♕xc5† ♔a6 13.♕c6†

Again with perpetual check.

Scoring for Puzzle 8

Best move	Score	Evaluation
1.♘e1	**10**	**0**
1.♘xe3	1	–3
1.♘d4	1	–3
1.hxg4	1	–3
1.♘e4	1	–3
1.♘b4	1	–3

Bonus points for correct evaluation

Between –0.30 and –0.59	1 point
Between –0.10 and –0.29	2 points
Between –0.09 and +0.29	**3 points**
Between +0.3 and +0.59	2 points
Between +0.6 and +0.89	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This is one of the hardest puzzles in the book. If I were to select a single puzzle from this book which would test if a player is a Super-GM or not, I would probably choose this one. If you found the correct four-move sequence that maintains equality, and evaluated the position correctly within plus or minus 0.25, I am betting money that you are either a grandmaster or about to become one.

Adams Insight

This is a position where calculation is obviously required, but no one was able to reach the solution purely by crunching variations. General principles can still be a considerable help. 1.♘e1 feels right: from the back rank, where the knight prevents ...♖d1 from coming with check, it defends both the g2- and f3-squares, and also opens up the counterattack against c5. To achieve all these things with one move makes it a remarkable multitasking defensive resource. It holds the kingside together

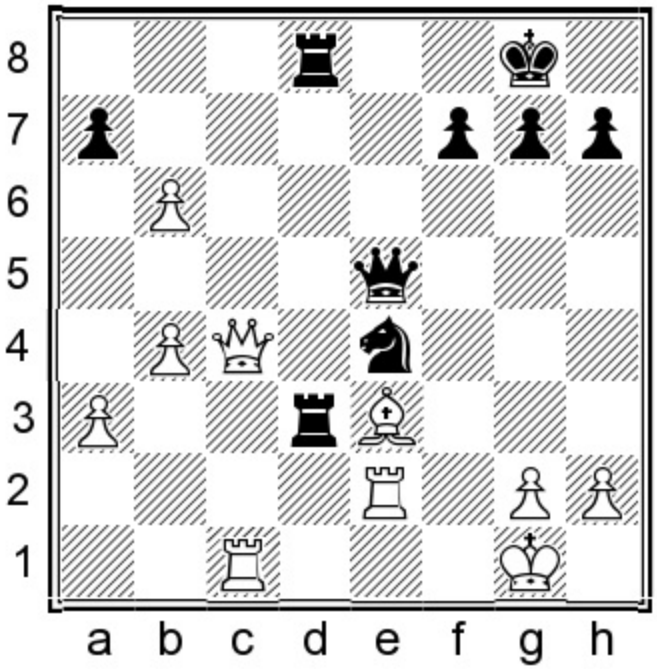
sufficiently that Black will need some time to break through. It’s not realistic to calculate everything in such a complicated position, so choosing the line which seems intuitively the most reliable is a sound strategy.

The main alternative is 1.♘xe3, which caused a lot of confusion. I failed to find the key winning moves 4...b6 or 4...♔b8, probably because I felt that the position needed greater urgency, and the variation is already a few moves deep – although Harriet and I both sensed that a strong option probably existed for Black there. I was able to find the same consolidating idea in the 1.♘e1 line, when there were not so many distracting checks available to complicate matters.

Positions 9-12

A Dirty Dozen

Puzzle 9



Black to play – Level 7

Show/Hide Solution

Puzzle 9 – The move even Adams missed

John Green
Elo 1563

00:20 Black has two connected rooks and controls the d-file.
01:00 White is threatening bxa7; that could cause problems.

01:20 White also controls the c-file, and could threaten mate on the back rank.
01:45 I could play 1...♖d1† and eliminate one of White's rooks.
02:45 After 1...♖d1† 2.♖xd1 ♖xd1† is mate.
03:00 So, after 1...♖d1† 2.♖e1 is forced.
04:00 My final move is **1...♖d1†**.

Evaluation: –1.0

Jesús Cao
Elo 2060

01:00 I see White is taking my pawn on a7. I also see I can play 1...♖d1† 2.♖e1.
02:00 I could play 1...♖c3 because if he takes 2.♖xc3, I have a very nasty check on d1.
02:30 1...♘c3 is another good move. I am threatening to take on e2 with check.
02:45 1...♘c3 is very interesting.
03:00 My two candidate moves are 1...♖c3 and 1...♘c3.
04:00 0 and if he takes with0 then 2...♖d1† wins.
07:00 1...♘c3 2.♖xc3 ♖xc3 3.♗g5! is quite a bother.
07:55 1...♘c3 looks promising, but I can't evaluate the consequences after 3.♗g5.
10:00 1...♖c3 2.♖d2 ♖xc1† 3.♕xc1 ♘xd2 4.♗xd2 axb6 This looks good enough to win.
(Thinks in silence.)
15:00 1...♖c3. Clear advantage to Black.

Evaluation: –2.25

Renier Vazquez
Elo 2551

00:40 What first catches my attention is that all Black's pieces are well placed around the centre of the board. The next thing that catches my attention is that my pawn on a7 is being threatened.
01:00 I now see that I have to do something expeditious or I will run into trouble. 1...♖d1† is the first option I would look at. Let me calculate.
02:00 Because White's f-pawn is missing, there might be some additional tactical possibilities. But anyway, I have to look for a concrete move now.
03:00 1...♘c3 2.♖xc3 ♖xc3 and White is in serious trouble. So ...♘c3 is a serious threat.
04:30 1...♘c3 may be tactically winning.
06:30 I could be wrong, of course, but I would play without a doubt **1...♘c3**.

Evaluation: Black is winning. (–3.0)

Michael Adams
Elo 2701

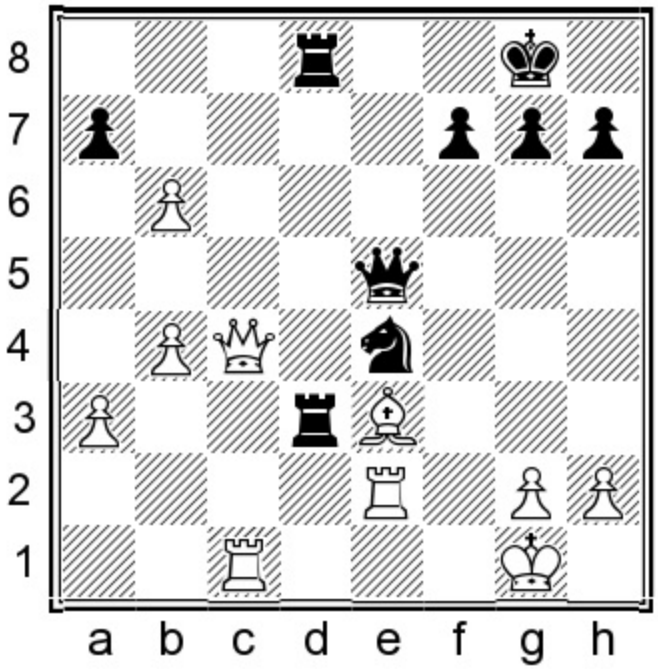
00:15 1...axb6 is the first move I see.
00:40 1...♖d1† is also possible. Also, many knight moves: 1...♘c3, 1...♘d2, 1...♘g3.
00:55 This is quite a complicated tactical position.
01:30 1...axb6 2.♗xb6 doesn't look very promising.
01:40 Maybe Black ought to look for a tactical solution.
02:20 Going deeper into 1...♘c3, I see it opens an attack on the white bishop.
05:00 1...♘c3 looks good. I am taking things with check which is a good sign.
06:00 1...♘c3 2.♖2e1 ♖xe3 3.♖f1 (threatening to take on f7) 3...♘e2† 4.♔h1 ♕e7 winning.
06:30 1...♘c3 2.♖f2 ♖d1† 3.♖xd1 ♖xd1† 4.♖f1 ♕xe3†
07:00 1...♘c3 2.♖f2 ♖d1† 3.♖f1 ♕xe3† 4.♔h1 ♕xc1! 5.♕xf7† ♔h8 and White cannot mate because the rook is pinned.
07:30 I think **1...♘c3** is winning for Black.

Evaluation: –3.0

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2018



This was one of my weakest moments in the test. I totally missed the correct idea, partly because I was convinced my solution was comfortably good enough – but that was another error, as I also missed many spectacular resources for White after my choice. Although this position is not too complicated if you hit on the right idea, I wasn't the only highly rated participant who completely missed it.

1...♖c3!

I was disappointed I failed to find this simple blow, especially as the calculation required is not that difficult. Decoying the c1-rook wins serious material – I think I was transfixed by the fact that the rooks seemed to be doing a good job on the d-line, and just didn't consider the sideways step.
1...axb6?? 2.♕xd3! exploits the back rank.

1...♖d1†? 2.♖e1+– gets nowhere for Black.

I thought 1...♘c3 was winning easily, but there were two (admittedly not easy to see) serious defensive tries:

a) 2.♖f2? is not one of them, as 2...♖d1† 3.♖xd1 ♖xd1† 4.♖f1 ♕xe3† 5.♔h1 ♖xf1† 6.♕xf1 axb6 wins easily enough.

b) I underestimated the myriad of practical difficulties after the cool reply:
2.♔h1!?

Defending the rook on e2 indirectly. Black needs to find an exact series of not-very-obvious moves to prevail. In a practical game, all three results would still be in play.

2...♕e8!

2...♘xe2?? 3.♕xd3+– would be a disaster.

2...♖xe3?! 3.♕c7! puts Black on the defending side of a probable draw.

2...♖d1† 3.♖xd1 ♖xd1† 4.♗g1 ♖xg1† 5.♔xg1 ♘xe2† 6.♔f2 ♕f5† 7.♔xe2 axb6 with an equal queen ending.

2...axb6 3.♖f2! ♕d5 4.♕xd5 ♘xd5 5.♖d2! ♖xe3 6.♖xd5 is also drawish.

The text move is the only way to win. By retreating the queen, Black shores up the back rank and renews the threats to the bishop and rook.

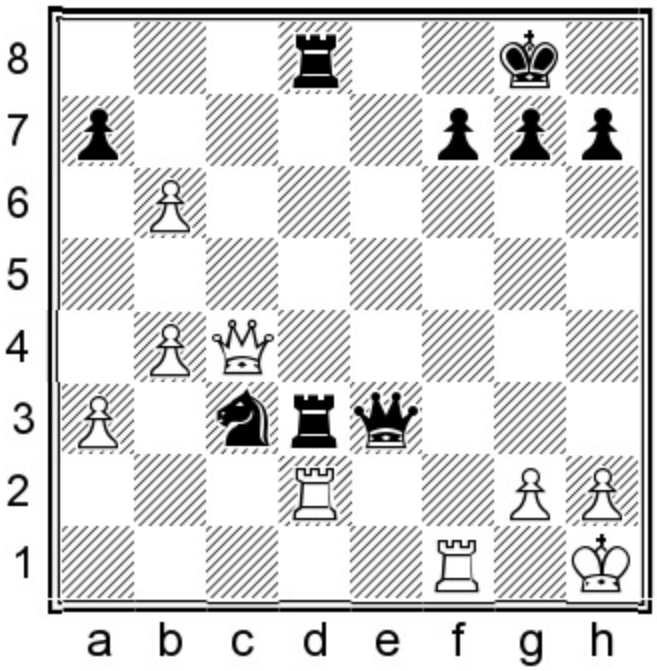
3.♖d2

3.♖ee1 ♖xe3 4.♖xe3 ♕xe3 5.♖f1 ♘d5 6.b7 ♕b6 transposes.

3...♕xe3 4.♖f1!

4.♕xc3 ♕xd2 wins comfortably.

The timely counterattack on f7 could easily cause panic if you are not computer-aided.



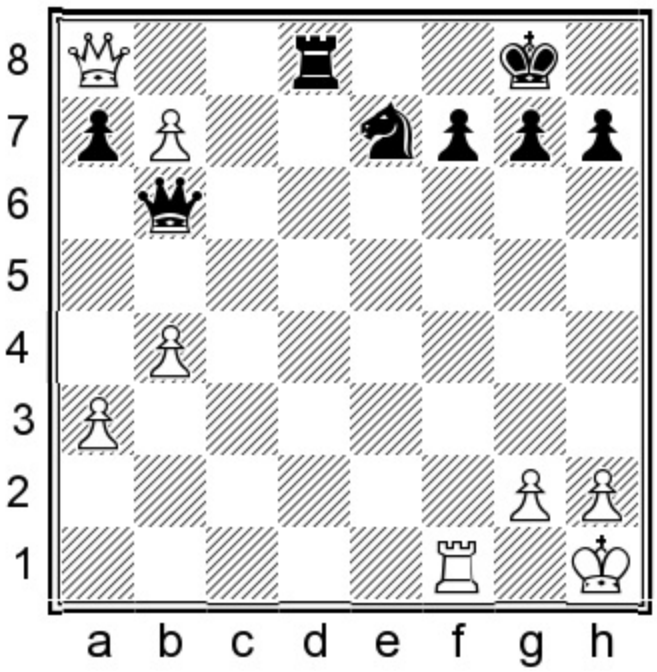
4...♖3d5!

The only winning move.

4...h6 is the only other playable option, after which 5.♖xd3 ♕xd3 6.♕xd3 ♖xd3 7.b7 ♖d8 8.♖c1 ♖b8 9.♖xc3 ♖xb7 reaches an endgame which should be a draw, but if anyone can play for a win, it is White.

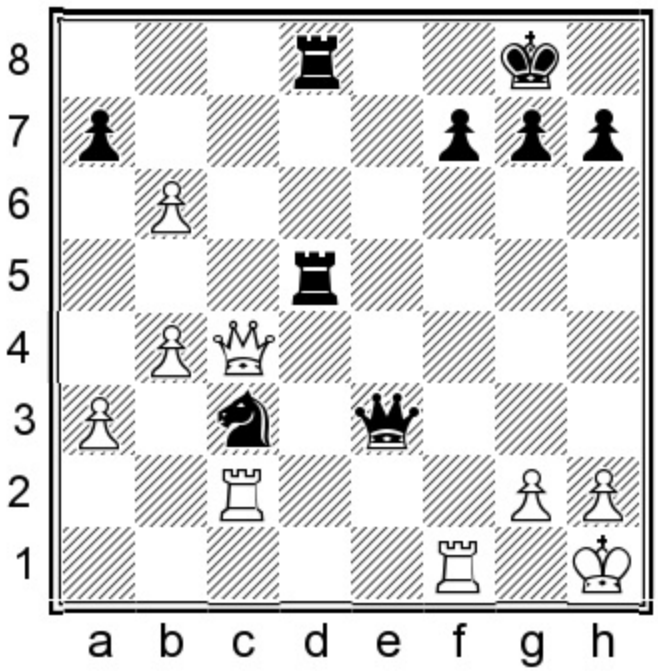
5.♖c2!?

5.♖xd5!? also demands great precision on Black's part: 5...♘xd5 6.b7 ♕b6! 7.♕c8 ♘e7! Black will be able to capture the b7-pawn eventually, but it is hardly smooth sailing. 8.♕a8! (8.♕c4 ♖f8 9.♕e4 ♘c6–+)



8...♕c7! 9.♕xa7 (9.♖d1 ♖b8 10.h3 g6 11.♖d7 ♕c1† 12.♔h2 ♕f4† 13.♔h1 ♘c6–+) 9...♖b8

10.♖d1 ♘g6 11.♖d7 ♕c1†! 12.♕g1 ♕c6! 13.♕a7 ♘f8! 14.♖e7 ♕c1† 15.♕g1 ♕xg1† 16.♔xg1 ♘e6 17.a4 ♔f8 18.♖d7 ♔e8–+ Finally!



5...♖d1!

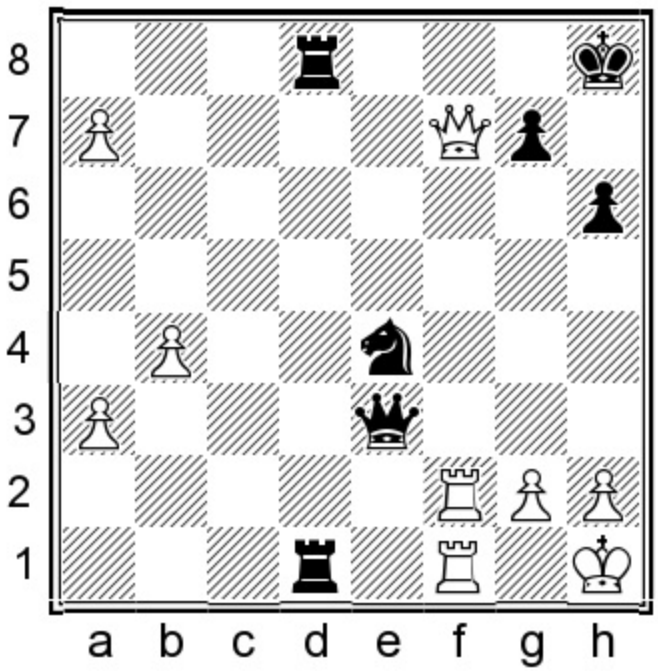
Just now, it turns out that White has the weaker back rank.

6.♕xf7† ♔h8 7.♖cf2

7.bxa7 ♘e2! sets up a nice mate: 8.a8=♕ ♕g1†! 9.♖xg1 ♖xg1#

7...h6! 8.bxa7 ♘e4

There isn't enough time for the pawn on a7 to become a big factor.



9.♖f3

9.♕f8† ♖xf8 10.♖xf8† ♔h7 11.a8=♕ ♖xf1† 12.♖xf1 leads to a classic smothered mate: 12...♘f2†

13.♔g1 ♘h3† 14.♔h1 ♕g1† 15.♖xg1 ♘f2#

9...♕e2 10.b5

10.h3 allows 10...♘g3†.

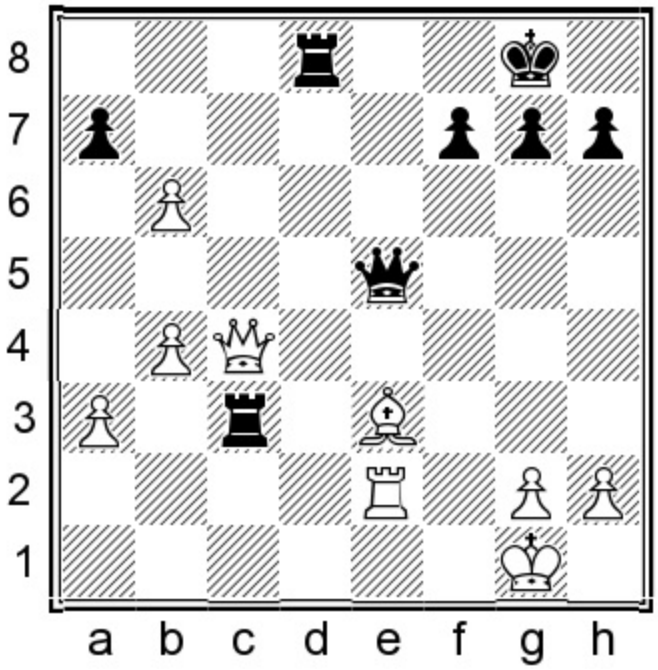
10...♘g5!

Black wins.

c) 2.♖xc3!

Although the previous option would have worked as an excellent practical try, the text move is objectively strongest, and might even save the game.

2...♖xc3



3.♗g5!

This brilliant desperado really complicates things – a very easy resource to miss. This move was well spotted by Jesús Cao.

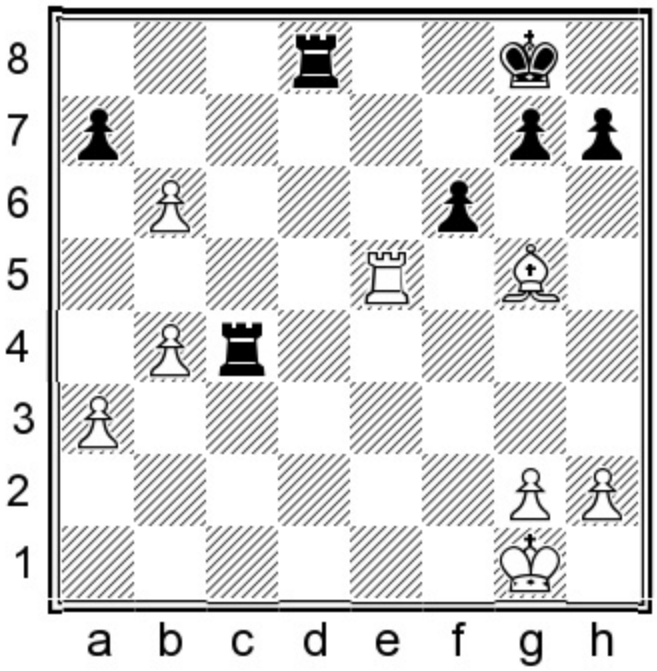
After 3.♕f4 ♕xf4 4.♗xf4 axb6 Black should have no trouble converting the extra exchange.

3...♖xc4

3...♕xg5 4.♕xc3 axb6 is an equal ending.

4.♖xe5 f6

4...♖d1†? 5.♔f2+– is no good for Black.



5.bxa7!

Leading to an extremely complicated endgame.

5...fxg5

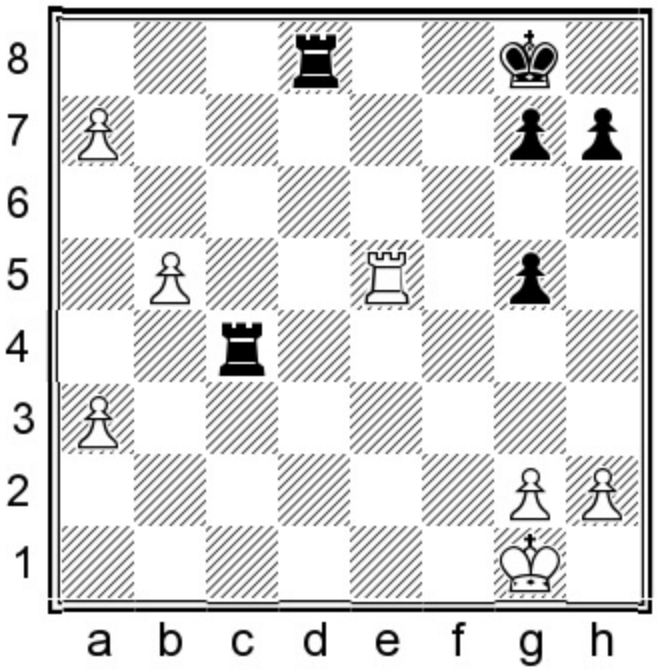
5...♖c7? leads to disaster after: 6.♖a5! ♖a8 7.♗e3+–

5...♖a8?! 6.♖e7 fxg5 7.♖b7 leaves Black struggling to draw.

6.b5!

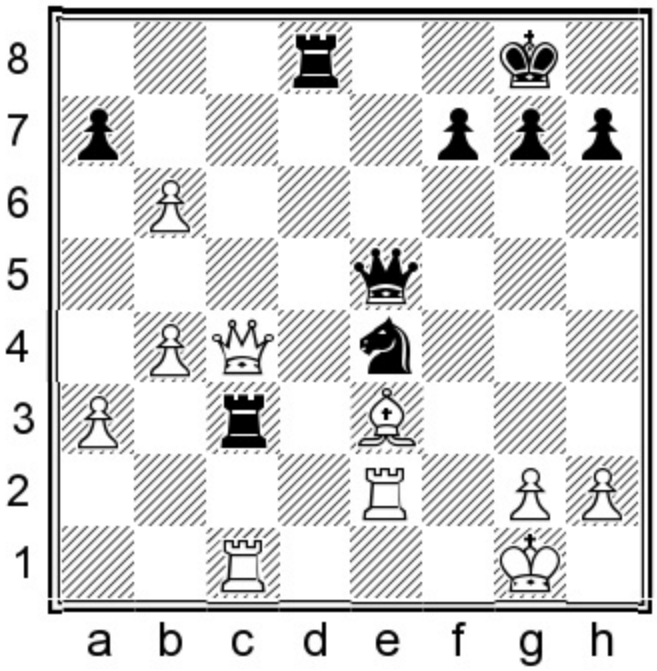
6.♖e7? is less effective in view of: 6...♖f8 7.h3 h5! Surprisingly, Black can whip up a dangerous attack against the king. 8.b5 ♖c1† 9.♔h2 h4 10.b6 ♔h7 11.♖e2 (or 11.b7 ♖ff1 with mate to follow) 11...♖b1 Black wins.

Instead White should advance the pawns as quickly as possible. White seems to be holding, as it won't be possible to mop up the queenside pawns without giving up one of the rooks. A sample line continues:



6...♖c1† 7.♔f2 ♖c2† 8.♔e3 ♖c3† 9.♔e2 ♖xa3 10.♖e7 h5 11.♖b7 ♔h7 12.♖b8 ♖d5 13.a8=♕ ♖xa8 14.♖xa8 ♖xb5

With only a nominal advantage for Black.



2.♕xe4!?

2.♖xc3? ♖d1† leads to a quick mate.

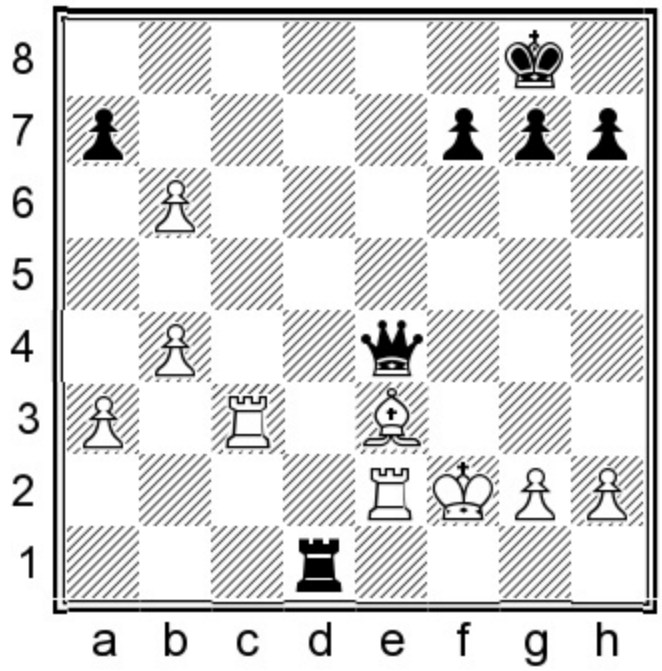
2.♕xc3 ♘xc3–+ and

2.♕a6 ♖xc1† 3.♗xc1 ♖d1†–+ both win easily for Black.

2.♖d2!? is the only other noteworthy try, aiming to exploit the back rank, but Black's only winning continuation 2...♖xc1† 3.♕xc1 ♘xd2 4.♗xd2 axb6–+ is simple enough.

2...♕xe4 3.♖xc3 ♖d1† 4.♔f2

Materially it's close, but Black can pick up a rook with a couple of simple checks.



4...♕f5† 5.♔g3 ♕e5† 6.♔f3

6.♔f2 ♕f6† 7.♔g3 ♕xc3 8.bxa7 ♖d8 is more or less the same thing.

6...♕xc3 7.bxa7 ♕c6†

White can resign.

Scoring for Puzzle 9

Best move	Score	Evaluation
1...♖c3	**10**	**–4.5**
1...♘c3	2	–0.9
1...Others	1	+3

Bonus points for correct evaluation

Lower than –2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Another of my blitz games, where I again failed to find the best move. I also missed it when I analysed the game post mortem, yet the solution is surprisingly simple once you see it. However, otherwise it is very counterintuitive. Players who failed to find the solution did not consider the winning move among their candidate moves.

Players with great tactical awareness, like Eltaj Safarli and Eduardo Iturrizaga, found the winning move almost instantly.

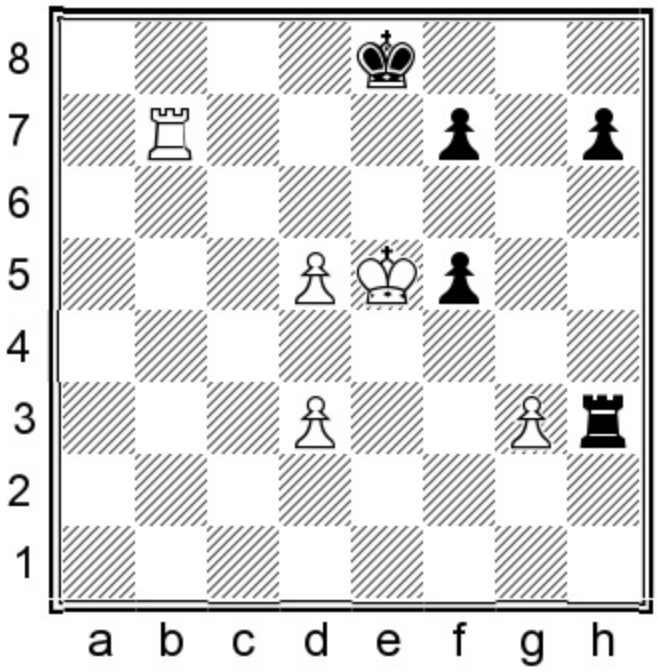
Adams Insight

I feel a fraud attempting to give insight here, after my dismal failure to even consider the correct move. I hope you did better than me!

The problem for me seemed to be a combination of factors. First, I became convinced that 1...♘c3 was a simple win, as you need some imagination to conceive of White's tricky defensive ideas. I also failed to see that the rook on d3 has lateral options, and doesn't only have potential down the d-line.

In any case, the thicket of variations after 1...♘c3 contains some fascinating nuances, which are well worth checking out in greater detail.

Puzzle 10



White to play – Level 7

Show/Hide Solution

Puzzle 10 – Easy Only for Grandmasters

Akshaya Kalaiyalahan
Elo 2149

01:00 Right now I am looking at two moves: 1.♔d6 ♖h6†, and 1.♔xf5.
04:30 Now I am considering 1.♔f4 h6.
07:00 I am going to go for **1.♔f4**, then play d4, and sort of wait and see what Black does.

Evaluation: (+0.5)

Harriet Hunt
Elo 2414

01:00 We have level material. White has a passed pawn. Black's king is on the back rank. My g3-pawn is en prise. Black should suffer in this position.
01:20 An immediate move is 1.♔f4.
02:30 It is hard for Black to find something constructive after 1.♔f4; it looks miserable for Black. 1.♔f4 h5 2.d6 h4
04:30 3.♖e7† The king moves. If 3...♔f8 4.♖e3 is 1–0. And if he goes 3...♔d8, 4.♖xf7 threatens to take his other f-pawn.
05:30 If I were short of time, I would play 1.♔f4 and be confident Black is in serious trouble.
07:00 I would play 1.♔f4 and the position is horrible for Black.
09:00 1.♔f4 ♔f8 2.d6, and again 1–0.
10:00 Maybe I am over-optimistic. 1.♔f4 ♖h1 2.♔xf5, and I've just taken your f-pawn.
11:00 1.♔f4 and see what happens.

Evaluation: +3.0

Julio Granda
Elo 2630

00:20 White should win. He has a fantastic king and passed pawn.
01:00 1.♔d6 looks like a forced line.
02:00 1.♔d6 ♖h6† This might be the only reply. 2.♔c7 ♔e7 3.♖b1 (maybe) with the idea of ♖e1†. If 3...♖a6 4.♖e1† looks decisive.
02:45 1.♔d6 ♔f8 2.♔c7 ♖xg3 3.♖b3 ♖g1 4.♖c3 and the passed pawn should decide.

03:00 1.♔d6 Decisive advantage.

Evaluation: +10.0

Michael Adams
Elo 2701

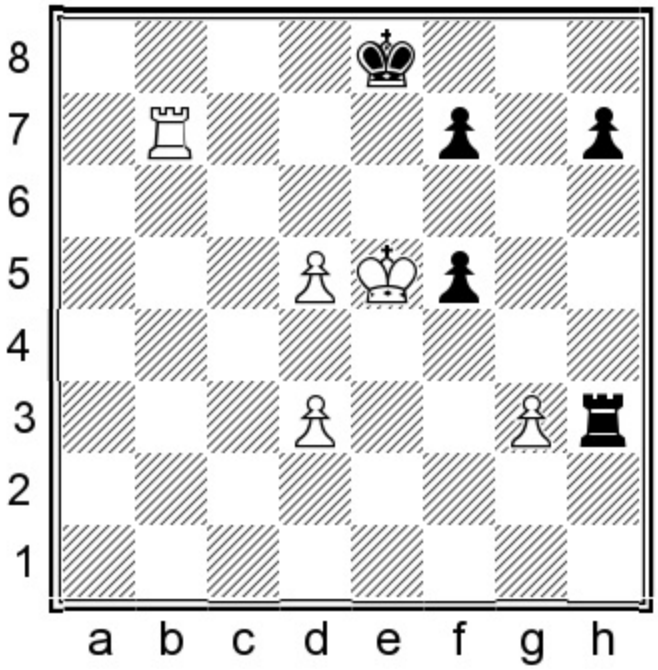
00:30 1.♔d6 looks quite tempting.
01:00 After 1.♔d6, Black has two alternatives: 1...♖h6† and 1...♔f8.
03:00 1.♔d6 ♖h6† 2.♔c7 ♔e7 3.♖b1 ♖a6 (probably) 4.♖e1† and, after the king moves, 5.d6 looks winning.
06:00 1.♔d6 ♔f8 2.♖b8† ♔g7 3.♔c7 ♖xg3 Either 4.♖b3, or 4.d6 immediately.
06:40 I think **1.♔d6** is the best move, and White is winning.

Evaluation: +4.0

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



King activity is the key theme here. It is also important to realize that White must look for a way to force the action immediately, by promoting White's most valuable asset: the advanced d-pawn. White's three scraggly pawns won't be sufficient to win the game if Black is able to regroup. A

common error was to try to win a pawn or two instead. Although that leads to a nominal material advantage, it won't be enough to win the game.

1.♔d6!

Tactics are often key to endings, and here the mating threat of ♖b8 creates the means to improve White's king position with gain of time, with the added bonus that Black's king is shouldered aside. White's king will be perfectly placed on c7 to promote the pawn on d5 – the only winning plan from White's point of view.

1.♖b8†? ♔d7 2.♖b7† ♔c8! (2...♔e8? gives White a second bite at the cherry: 3.♔d6!+–) 3.♖xf7 ♖xg3 We reach a typical position where White has no real hopes.

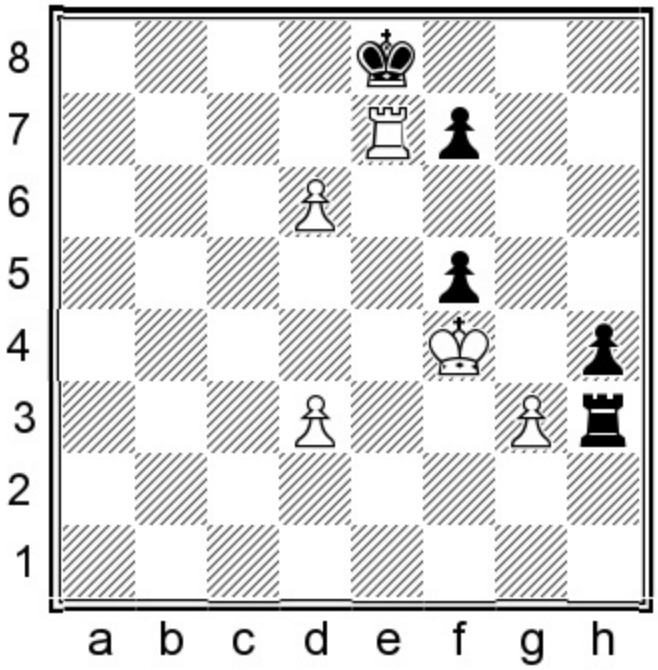
1.d6? is the move Phil's opponent played, allowing a simple draw. 1...♖xg3 2.d7† ♔d8 Now Black's king is perfectly placed to stop the pawn. 3.d4 (The problem is that whenever White advances the king to support the pawn, Black simply checks it away: 3.♔d6 ♖g6†) 3...h5 Now it's time for White to think about securing a draw.

1.♔f4?

This materialistic move shows White hasn't assessed the situation accurately. The pawn on d5 is much more potent than any other of the remaining foot soldiers, so retreating the king to defend g3 is a step in the wrong direction. Even if White wins a pawn, it won't be possible to convert it once Black's defences are secured.

1...h5 2.d6 h4 3.♖e7†

This cleans up Black's pawns, but the additional material won't be sufficient for the whole point. 3.gxh4 ♖xh4† 4.♔e5 (4.♔xf5 ♖d4 draws trivially) and now there are several drawing moves, 4...♖h3= for instance.

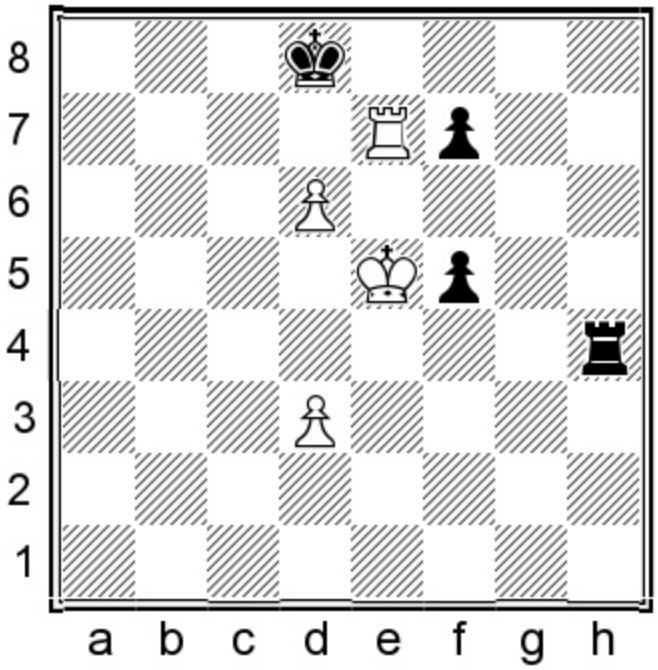


3...♔d8!

3...♔f8? loses trivially, for instance: 4.♖e2 ♖xg3 5.d7 ♖xd3 6.♖e8†+–

4.gxh4 ♖xh4† 5.♔e5

Even if Black loses both pawns, the endgame is an easy draw. White's king is unable to find a good place to hide from checks.



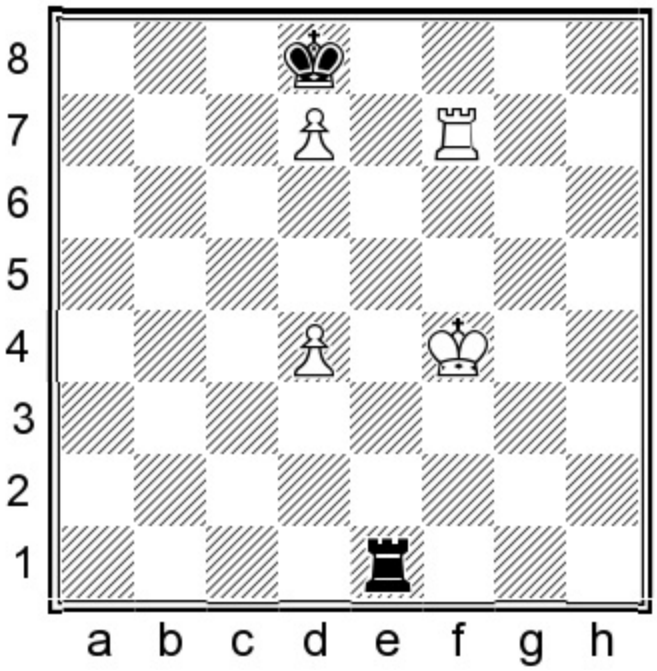
5...f4 6.♖xf7 ♖h3

Cooperatively giving up the pawn with 6...f3 7.♖xf3 ♖h1 makes no sense, but in another scenario it could be useful to be aware of the type of endgame which arises with two extra doubled pawns. Black still holds, as 8.♔e6 can be met by 8...♖e1† to check the king away. The fact that Black can afford to throw a pawn away and still draw shows how flawed White's plan was. Being aware of such drawing scenarios is a big advantage when thinking about the starting position, and I suspect most who solved this puzzle would have known this one.

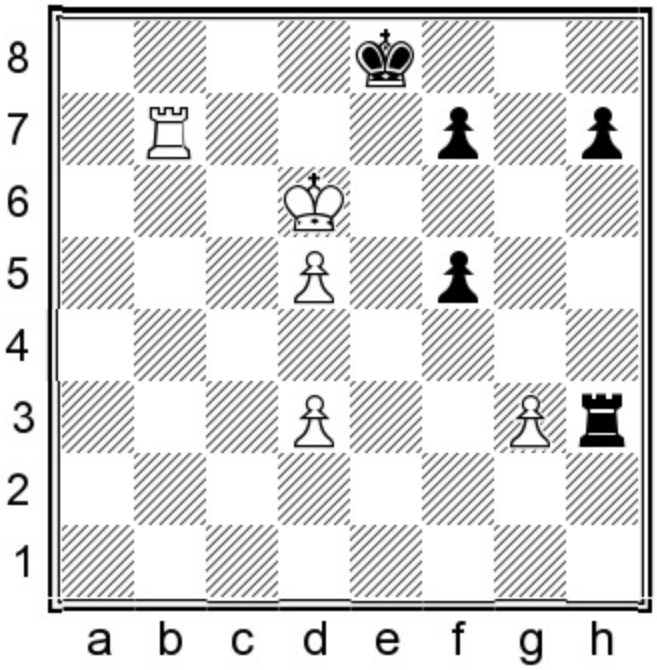
7.d4 ♖e3† 8.♔xf4

8.♔d5 f3 draws – although here too, Black does not even need the f-pawn.

8...♖e6 9.d7 ♖e1



With the king separated from the pawns, White has no winning chances.



1...♔f8!

Black gives ground with the king so that the rook can still capture the pawn on g3. This is the most challenging defence, which forces White to display some accuracy.

The alternative is:

1...♖h6† 2.♔c7

Black has to meet the threat of d5-d6 when the pawn can't be stopped, but it's impossible to organize the pieces to arrange a suitable defence.

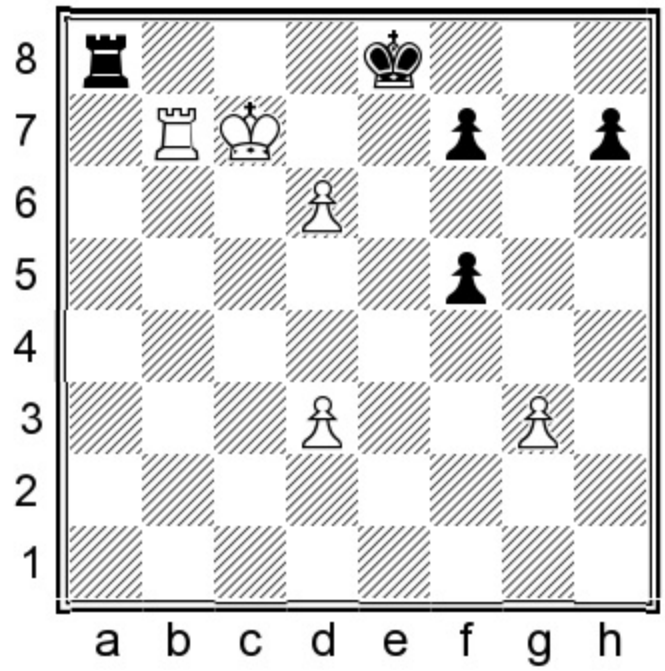
2...♖a6

2...♖h1 3.♖b8† ♔e7 4.d6† ♔e6 5.♖e8† ♔f6 6.d7 wins.

2...♔e7 3.♖b1! With White's king already ideally placed, the rook regroups to drive the black king out of the defensive operation. 3...♖a6 4.♖e1† ♔f6 5.d6 ♖a7† 6.♔b6 This is an example of the rook being on the short side of the pawn, with insufficient checking distance. The f7-pawn also impedes the rook, allowing White's king to gain time due to the rook's lack of squares along the 7th rank. 6...♖d7 7.♔c6 ♖d8 8.d7+–

3.d6 ♖a8

Now the simplest way is to bring up the extra d-pawn, as Black doesn't have many useful moves.



4.d4! ♖d8

Or 4...h5 5.d5 f4 6.gxf4 h4 7.d7† ♔e7 8.d6†+– and the second pawn decisively dislodges the black king.

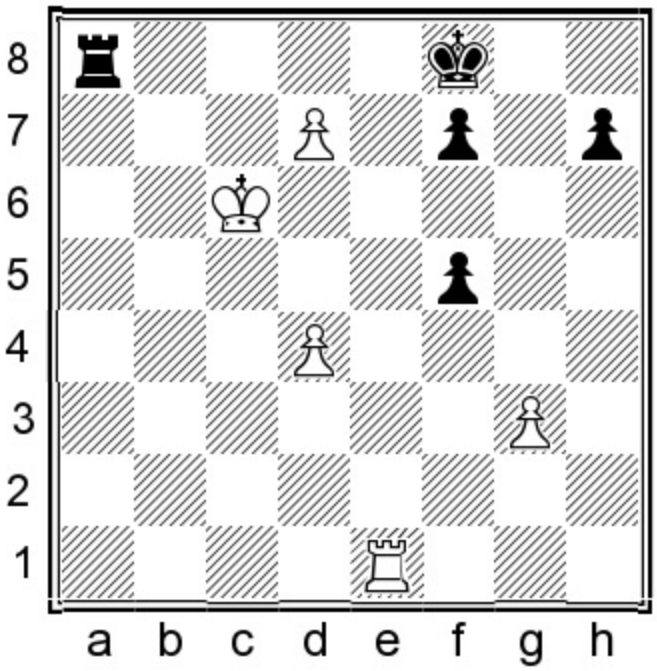
5.♖b1!

Now that the black rook is in a less active role and there are no checks on a7, it's time to redeploy White's rook.

5...♖d7† 6.♔c6 ♖d8

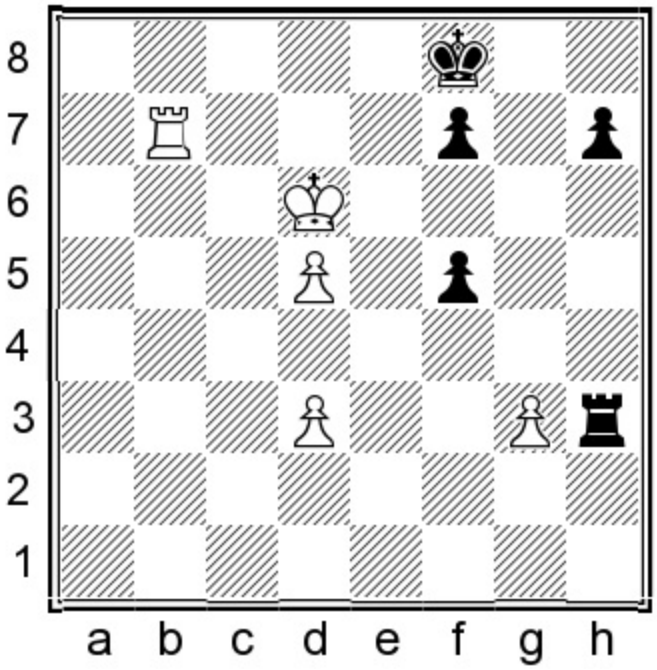
6...♖a7? 7.♖b8 is mate.

7.♖e1† ♔f8 8.d7 ♖a8



9.♔b7! ♖d8 10.♔c7

Black can resign.



2.♔c6!

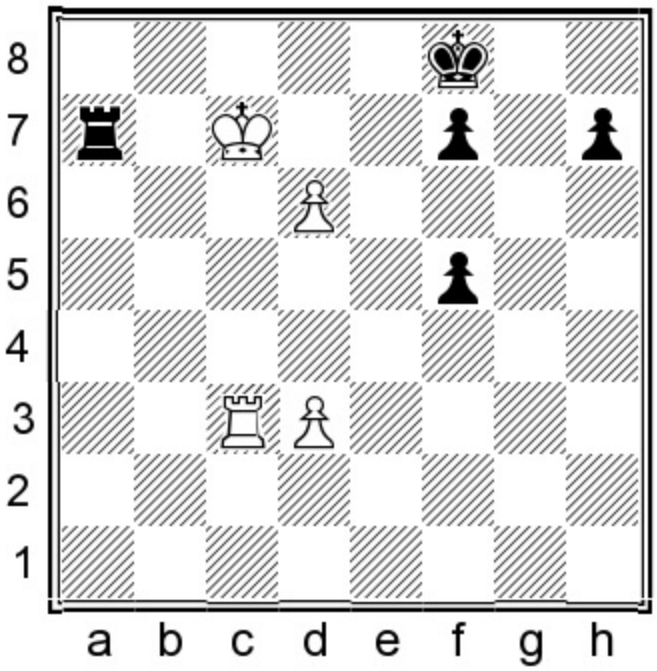
2.♔c7

This way also works, but is a bit more difficult. The winning line continues:

2...♖xg3 3.♖b3! ♖g1 4.♖c3!

Stopping annoying checks.

4...♖a1 5.d6 ♖a7†



6.♔b6!

White has to chase the rook, which again finds itself short of safe squares.

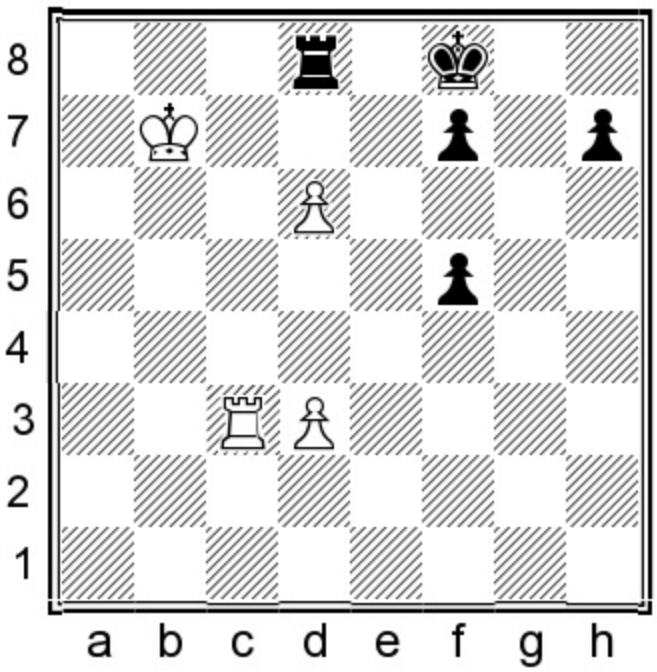
6.♔d8 f4 7.d7 f3 8.d4 f2 9.♖f3 ♖a8† 10.♔c7 ♔e7 only leads to a draw.

6...♖a8

6...♖d7 7.♖c8†! forces the black king away, and after 7...♔g7 8.♔c6 ♖a7 9.d7 the pawn promotes.

7.♔b7 ♖d8

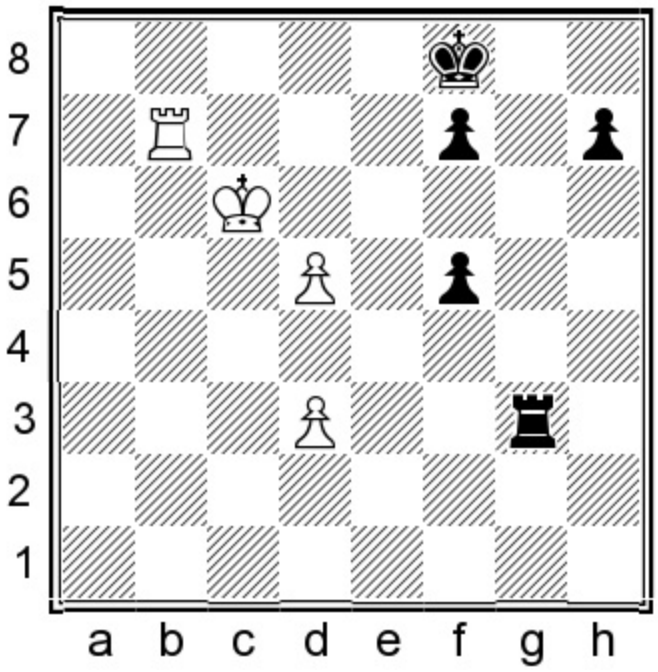
7...♖a1 8.♖c8† ♔g7 9.d7 wins.



8.♖c8 ♔e8 9.♔c7!+–

Forcing a decisive rook exchange.

2...♖xg3

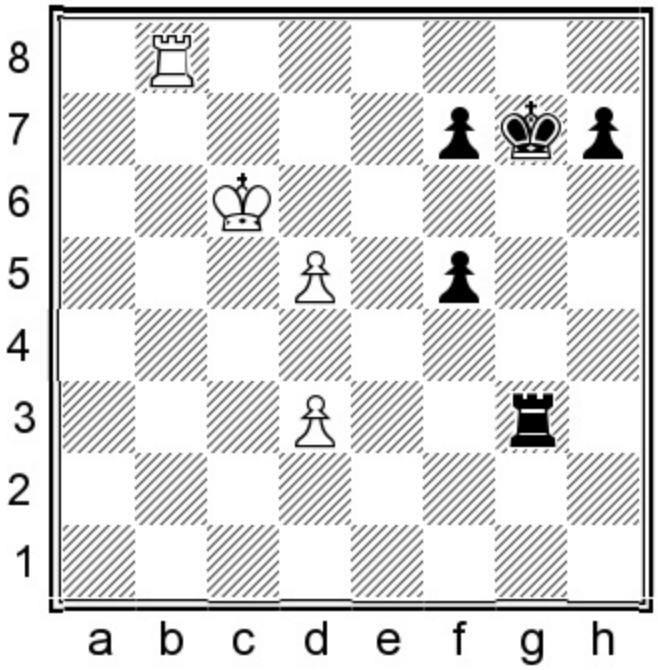


3.♖b8†!

Another classy tactical touch, forcing the black king offside.

3...♔g7

3...♔e7 loses to 4.d6† ♔e6 5.♖e8†! ♔f6 6.d7 ♖xd3 7.d8=♕† ♖xd8 8.♖xd8 ♔e5 9.♔c5 ♔e4 10.♔c4 when the pawns aren't far enough forward to be dangerous.



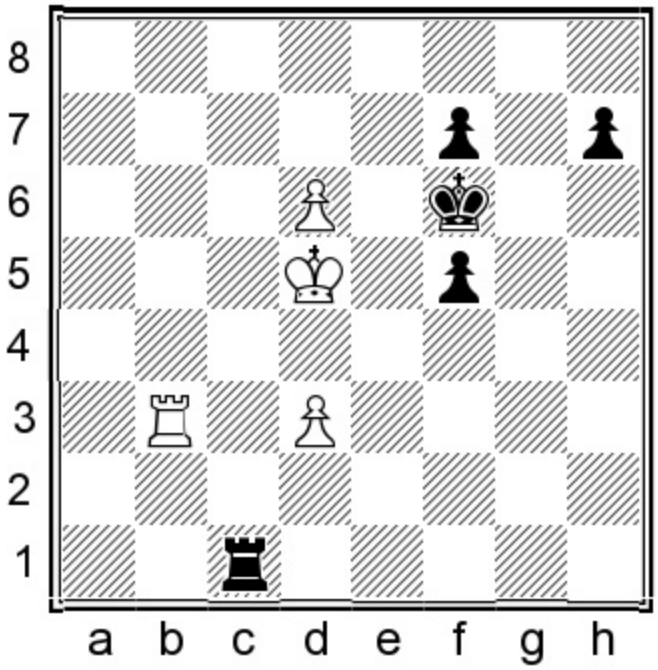
4.♖b3!

The only winning move is also the most obvious practical option here. The advanced d-pawn can't be stopped in any case; and by hanging on to another pawn, any technical difficulties are prevented.

4.d6? ♖xd3 5.d7 ♖c3† enables Black to save the game with checks. White's king can't escape or approach the rook without losing either the rook or the pawn. For instance, 6.♔b6 ♖b3† 7.♔a7 ♖a3† and so on.

4...♖g1 5.d6 ♖c1† 6.♔d5 ♔f6

6...♖c8 7.d7 ♖a8 8.♔d6 ♔f6 9.♖c3 f4 10.♖c8 ♖a6† 11.♔d5 leads to the same result.



7.♖b8! ♖d1 8.d4+–

Followed by d6-d7.

Scoring for Puzzle 10

Best move	Score	Evaluation
1.♔d6	**10**	**+5.0**
1.♖b8†	1	+1.3
1.d4	1	+0.9
1.♔f4	1	+0.1
1.♔xf5	1	+0.1
1.Others	1	

Bonus points for correct evaluation

More than +2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

After showing this puzzle to a lot of players, I came to realize that the right first move is only obvious to grandmasters: they see that White can and must strike immediately.

Most club players will initially spot 1.♔d6, as it threatens mate in one. However, they will reject it, as they immediately see Black's reply 1...♖h6†, which forces White to move the king again and complicates matters, so they will settle for a safe move instead, like 1.♔f4.

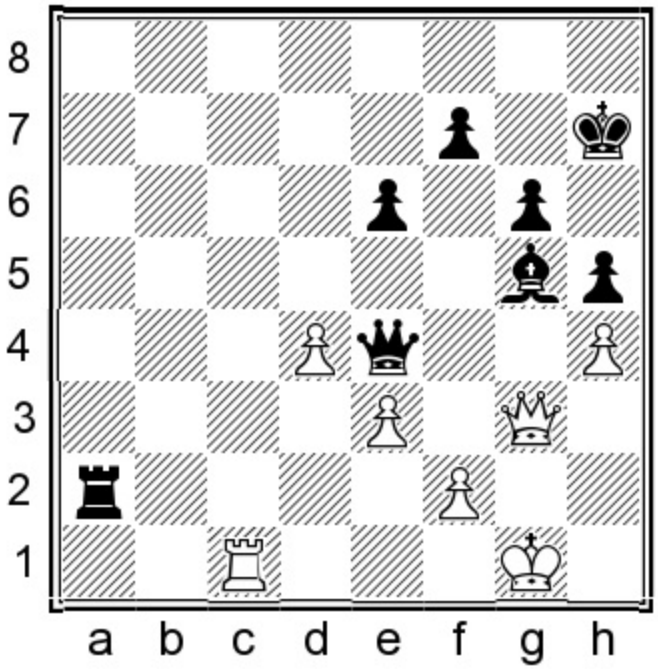
Adams Insight

I think there were a few factors that helped stronger players to succeed here. Firstly, the general endgame knowledge that rook and two doubled pawns versus a rook, with the defending king in front of the pawns, is normally a draw. They also recognized the importance of activity in endgames, whereas weaker players tended to prioritize material by protecting the pawn on g3. Finally, better calculation and the rigour to go deeply into the critical line allowed GMs to realize the d-pawn can be promoted swiftly. The threat of mate gains time to get the king to c7 quickly – the perfect square from which to shepherd the d-pawn home.

The quality of pawns is often more important than the quantity of them in endings. 1.♔f4 secures material, but doesn't utilize White's greatest asset: the pawn on d5. This is a puzzle where White

must seize the moment to win.

Puzzle 11



White to play – Level 6

Show/Hide Solution

Puzzle 11 – Recapturing Dilemma

Fermin Rodriguez
Elo 1544

00:15 Is it me to play? I have to take, right?
00:45 "Where's this game from?" *"It was me against GM Eltaj Safarli."* "Did you beat him?" *"No, I lost."* "How could you lose this?"
01:00 Well, I have to take. The question is how.
01:30 Okay, I would take with the pawn.
02:00 This is going to be a long endgame. There is still a lot of play.
02:30 Hmmm. There is no win here.
03:15 If 1.♕xg5 ♕f5 and Black is putting pressure on f2. So I take with the pawn: 1.hxg5
04:30 1.hxg5 h4 is possible.
1.♕xg5 ♕f5 2.♕xf5 and after the exchange of queens the rook endgame is drawn.
05:30 If 1.hxg5, I improve my pawn structure. So I play 1.hxg5.
06:30 White's structure is better. The only problem is that I have to be careful not to move my rook, as ♖a1 leads to mate.
07:30 1.hxg5 creates a wedge that can be dangerous for Black.

Evaluation: +0.12

Nathanael Paul
Elo 1993

00:25 1.♕xg5 feels natural, to coordinate queen and rook against the black king. Although Black is still very active.
00:55 Also taking with the pawn looks good because it blocks the black king from coming forward.
01:50 I am thinking 1.♕xg5. If I take with the pawn, Black gets a potential passed pawn.
02:37 I play 1.♕xg5. Should be equal. Both kings seem exposed.

Evaluation: 0.0

Michael Adams
Elo 2701

00:30 It's a question of two possible recaptures. Clearly White is in difficulties in either case. Not entirely sure what to play.
01:00 1.hxg5 looks shaky somehow. It does keep the pawn structure together, but after 1.hxg5 Black has 1...♖a5!.
01:30 1.♕xg5 allows 1...♕f3.
02:00 But then 2.♕g3 should be holdable.
02:50 1.hxg5 ♖a5 2.♕f4 ♕xf4 3.exf4 ♖f5 and the pawns drop off.
04:00 Looking again at 1.♕xg5, and evaluating the options. 1...♕f3 is the natural move but this should lead to a drawn endgame.
05:00 So **1.♕xg5** is the best move.

Evaluation: –0.3

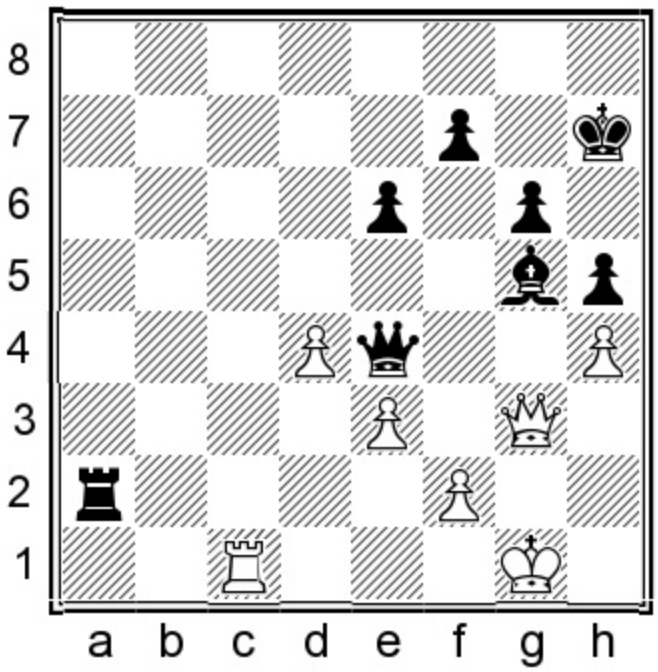
Deeper Analysis by Michael Adams

Philip Hurtado – Eltaj Safarli

Internet (rapid time odds training game) 2018

1.d4 ♘f6 2.♗g5 c6 3.♘f3 ♘e4 4.♗h4 d5 5.e3 g6 6.♗d3 ♗g7 7.c4 0-0 8.♘c3 ♘xc3 9.bxc3 b6 10.cxd5 cxd5 11.c4 ♘c6 12.cxd5 ♕xd5 13.0-0 ♗f5 14.♗xf5 ♕xf5 15.♖c1 ♖ac8 16.♕a4 ♕d5 17.♖c2 b5 18.♕a3 ♘e5 19.♖xc8 ♘xf3† 20.gxf3 ♖xc8 21.♕xa7 e6 22.♖b1 ♕xf3 23.♕d7 ♖c2 24.♕xb5 h5

25.♕g5 ♖xa2 26.♕g2 ♕f5 27.♖c1 ♔h7 28.♗g5 ♗f8 29.h4 ♗b4 30.♗f4 ♗e7 31.♕g3 ♕e4 32.♗g5 ♗xg5



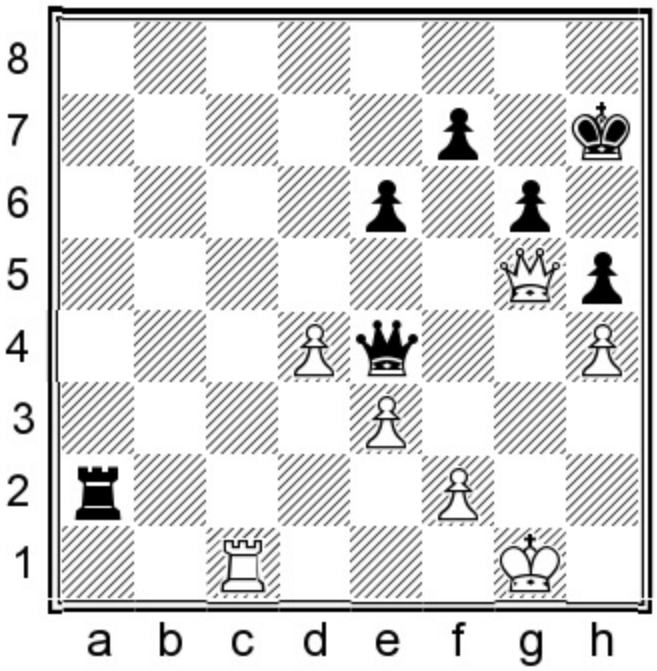
General considerations aren't a good basis for taking the decision of which recapture is best here. White has to focus on the concrete factors which enable White's weak pawns in his rickety structure to be covered most comfortably.

33.hxg5?

Phil comments: "Intuitively trying to keep my pawn chain compact, and at the same time blocking the emergence of Black's king. However, after Eltaj's next move, I realized I was in trouble."

Capturing with the pawn on g5 does remove the isolated pawn, but it concedes a protected passed pawn on h5. Although this move theoretically improves White's structure by reducing the number of pawn islands, the pawn is actually more vulnerable on g5, where both of Black's pieces can easily target it by dropping back to the 5th rank. In conjunction with the pressure on f2 and White's open king position, this creates unpleasant pressure.

The other capture is correct:
33.♕xg5!

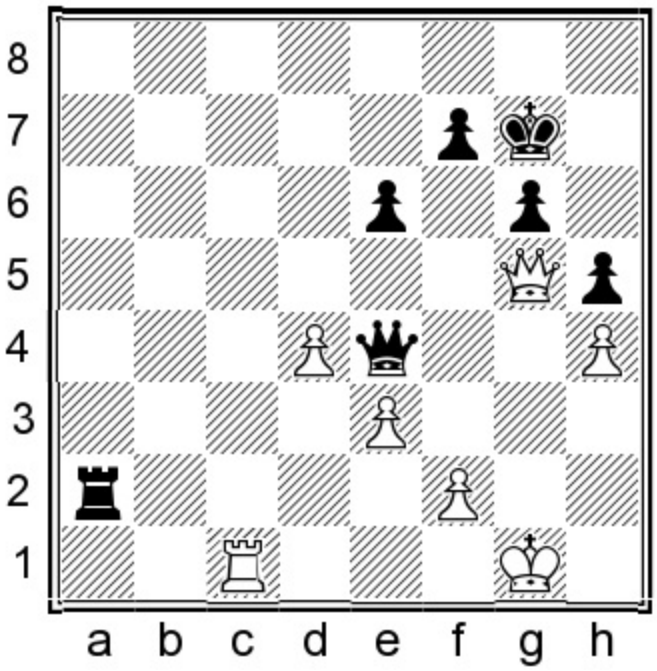


Although the pawn on h4 looks weak, it is not really possible to target it currently, as the d4-pawn prevents access along the rank. The limited material remaining means that Black has no good way to get to the weakling on h4. Perhaps the trickiest practical try would be:

33...♔g7!?

33...♕f3 is the most direct move, when 34.♕g3 is simplest. Black can't really make progress without swapping queens, and rook endgames are little problem. (It's also fine to mark time with 34.♖f1; and 34.♕g2 ♕f5 35.♖c5 ♕b1† 36.♔h2 ♕e1 37.♔g3 ♔g7 38.♕f3 is alright too.) 34...♕xg3† (34...♕f5 35.♔g2 leads nowhere for Black after 35...♕e4† 36.♕f3, or 35...♔g7 36.♕e5† ♕xe5 37.dxe5.) 35.fxg3 White is a little worse as the king is cut off on the back rank, but that is of no great consequence here. The king is close to the pawns on e3 and g3 that need cover, and Black's king is not active, resulting in a fairly clear draw. 35...♖e2 36.♖c3 ♔g7 37.♔f1 ♖a2 38.♖c7 (38.♖c5 ♔f6 39.♖b5= also works) 38...♔f6 39.♖b7= The simplification clearly favoured the defender in this line.

The text move asks the slightly awkward question as to what White's next move is.



34.♕e5†

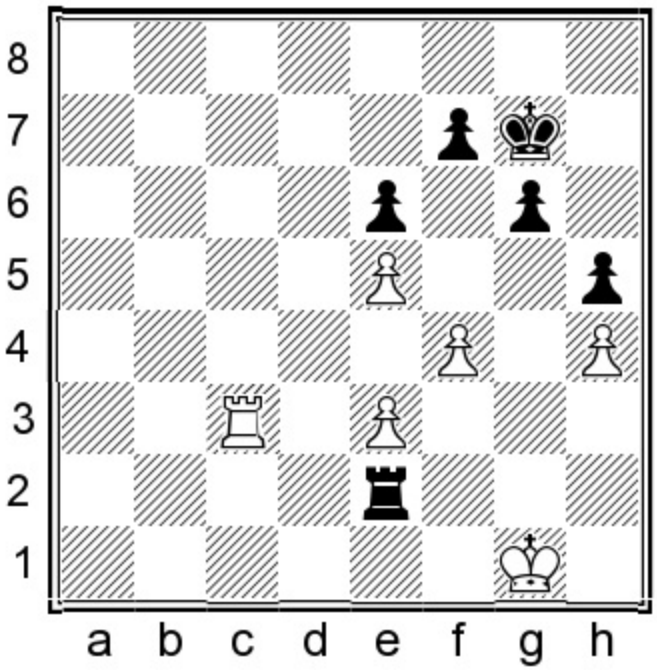
This is the obvious continuation.

Passing in return with 34.♖d1!? is okay, as 34...♕f3 35.♖f1 leaves Black without a convincing follow-up.

34...♕xe5 35.dxe5 ♖a4 36.f4 ♖a2

We reach another scenario where White's king is cut off, but there should be no real danger.

37.♖c7 ♖e2 38.♖c3



38...♔f8 39.♖a3

White's king is stuck, as 39.♔f1? allows 39...♖h2, but White can mark time with the rook.

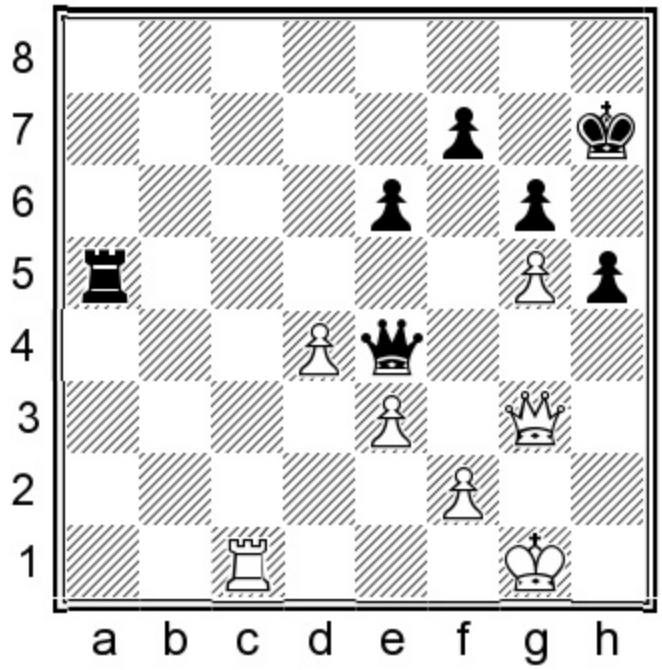
39...♔e7 40.♖a7† ♔e8 41.♖a3 ♔d7 42.♖a7† ♔c6 43.♖xf7 ♖xe3 44.♖f6=

White easily makes a draw.

33...♖a5

The rook is well placed to target the g5-pawn here. White is reluctant to support it with f2-f4, as this will expose the second rank.

33...♕f5! is actually the most precise move order. The difference is felt after 34.♔g2 (34.♕f4 ♕xf4 35.exf4 ♖e2 wins a pawn) 34...♖a5 35.♕f4, which can now be met by 35...♕xg5†.



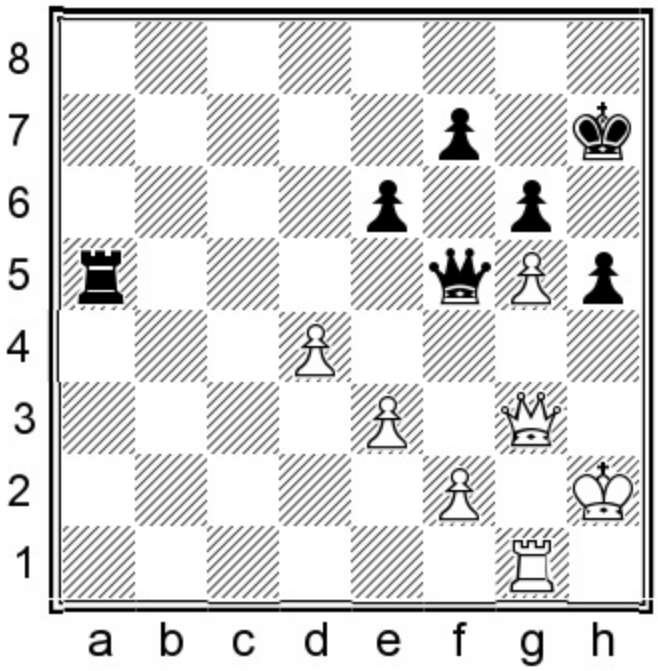
34.♔h2 ♕f5

34...♖f5?! 35.♖c5! ♖f3 36.♕g2 is less dangerous for White.

The most precise continuation is actually 34...♖a2!, repeating in order to play ...♕f5 next.

35.♖g1?

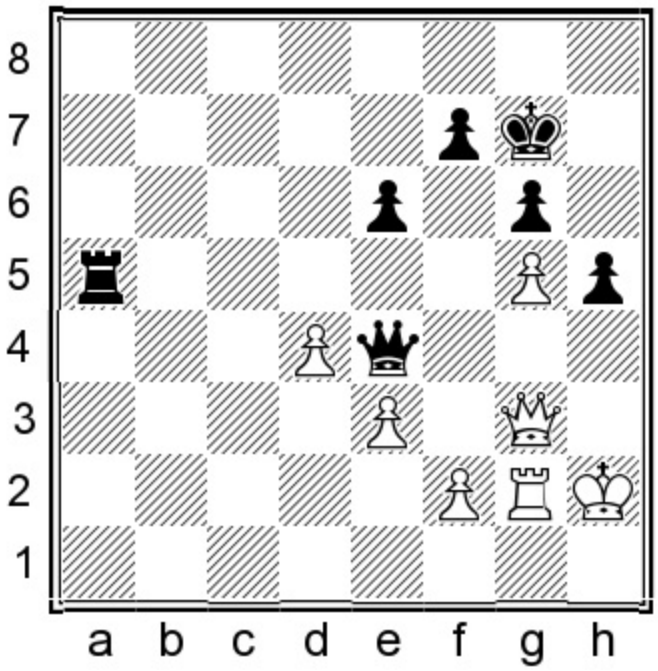
35.♕f4! is a good way to swap queens as 35...♕xg5?? is impossible due to 36.♕xf7†. So Black has nothing better than 35...♕xf4† 36.exf4 when, despite the weak pawns, White should hold.



35...♖a2 36.♖f1 ♖a5 37.♖g1 ♔g7!

Now White struggles to find a safe non-committal move.

38.♖g2 ♕e4



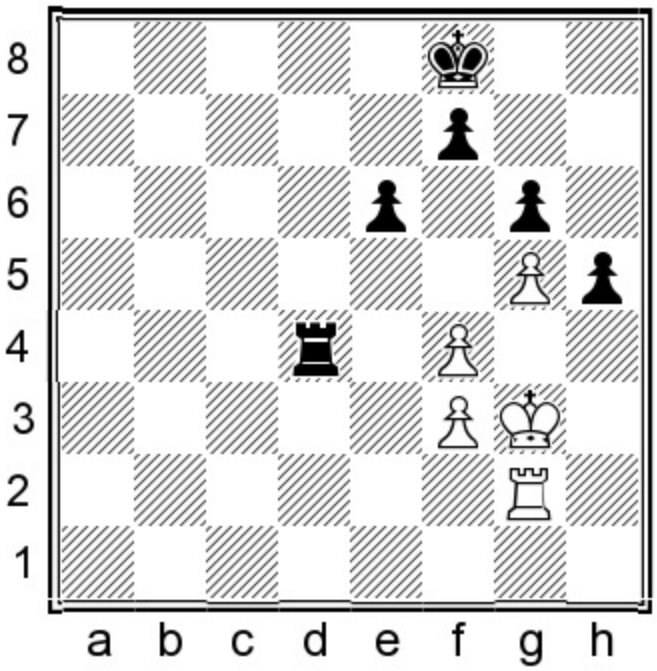
39.♕f4!

An excellent decision, limiting the damage.

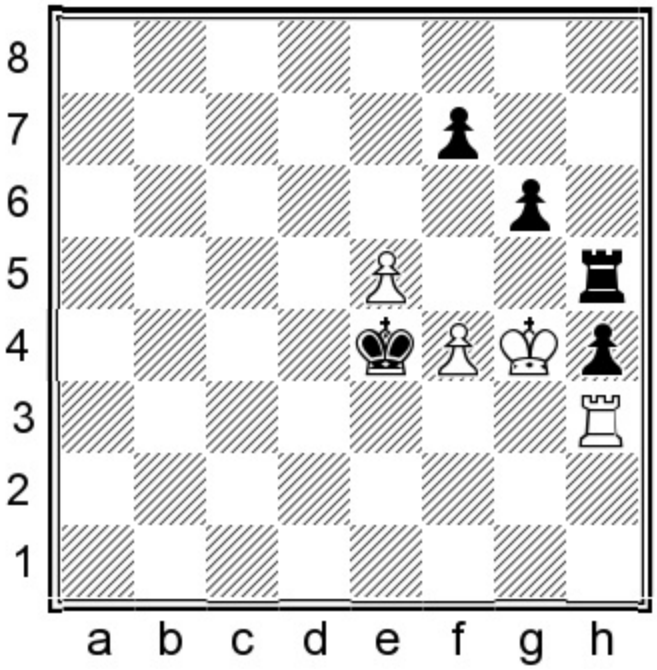
After 39.♖g1 ♖f5 40.f4 ♖a5 41.♕f2 ♕d3 White's position looks bad, and would be extremely hard to handle in practice.

39...♕xf4† 40.exf4 ♖d5 41.f3 ♖xd4 42.♔g3 ♔f8∓

White has reasonable chances to hold, but it's not much fun. For a long time Phil defends with aplomb.



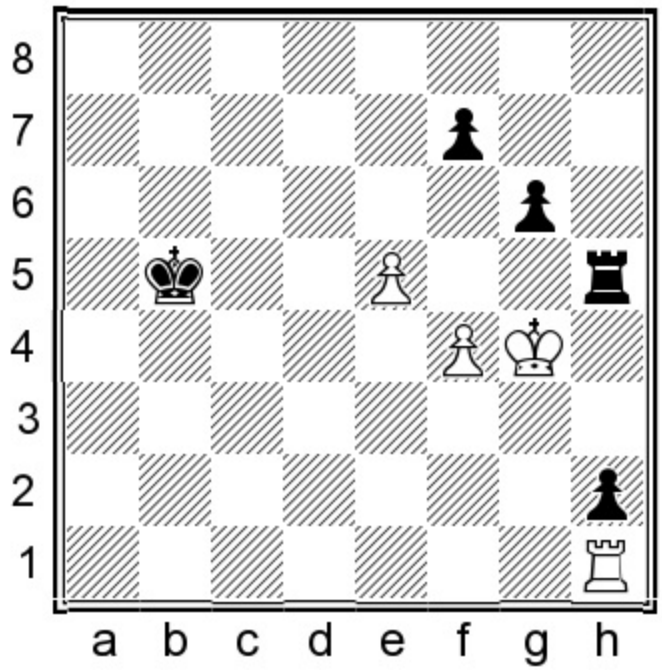
43.♖b2 ♔e7 44.♖b7† ♖d7 45.♖b6 ♖a7 46.♖c6 ♔d7 47.♖b6 ♖c7 48.♖a6 ♖b7 49.♔h3 ♔c7 50.♔g3 ♔b8 51.♖d6 ♔c7 52.♖a6 ♔b8 53.♖d6 ♖b5 54.♖d7 ♖f5 55.♖d4 ♔c7 56.♖a4 ♔b6 57.♖c4 ♔b5 58.♖c7 ♔b6 59.♖c3 e5 60.fxe5 ♖xg5† 61.♔f4 ♖f5† 62.♔e4 h4 63.f4 ♖h5 64.♖h3 ♔c5 65.♔f3 ♔d4 66.♔g4 ♔e4



0–1

White resigned: a sad end to strong resistance, and a particularly unfortunate decision as the position is actually drawn.

The point is that 67.♖a3 h3 68.♖a4† leads to a huge number of checks – and once Black's king goes to the queenside to avoid them, it will be too far from the action to win. 68...♔d5 69.♖a5† ♔c4 70.♖a4† ♔b5 71.♖a1 h2 72.♖h1



72...♔c4 73.♔g3 ♔d5 74.♖xh2 ♖xh2 75.♔xh2 ♔e4 76.♔g3= Black's active king is only of symbolic value.

Scoring for Puzzle 11

Best move	Score	Evaluation
1.♕xg5	**10**	**0**
1.hxg5	1	–0.9
1.Others	0	

Bonus points for correct evaluation

Between –0.30 and –0.59	2 points
Between –0.10 and –0.29	**3 points**
Between –0.09 and +0.09	**3 points**
Between +0.10 and +0.29	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I played 1.hxg5 guided by general principles: reduce my pawn-island count from two to one; gain space; restrict my opponent's king, and so on. I did not for a moment consider Black's strong reply. I have noticed many players of club level did exactly the same thing as I did when solving this puzzle.

One thing I learnt from testing these puzzles with strong GMs, and I want to stress this again here, is that they always make sure that general principles aren't refuted by concrete variations.

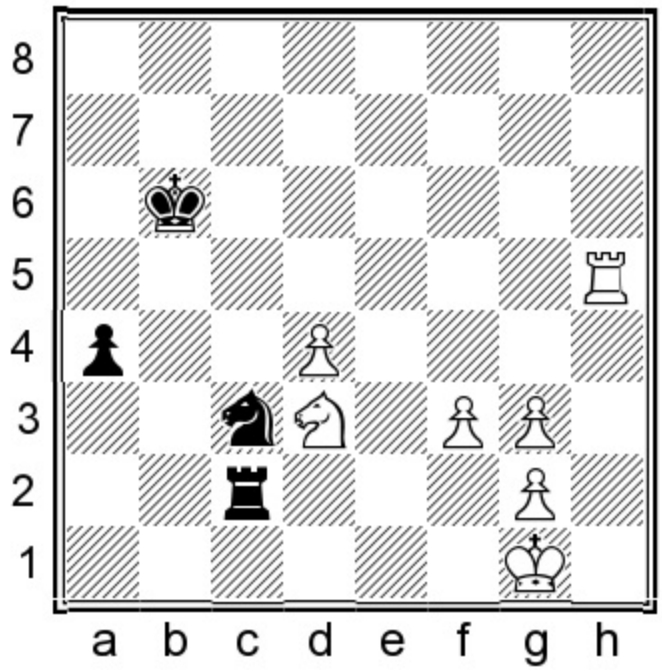
Adams Insight

Phil went wrong because he wanted to eliminate his isolated pawn – but in this particular case, although it looks ugly, it is not easy to attack it on h4, especially with Black having only two pieces remaining. It is actually more vulnerable on g5, where it can be attacked by both enemy pieces, as the rook can drop back to a5 and the queen to f5. The black queen is especially well placed on that square, where it can work with the rook to target both f2 and g5. White will be reluctant to play f2-f4 to secure the pawn on g5, as it leaves White's king wide open.

The position needs to be considered more concretely, on its particular features and possibilities, in order to limit the damage caused by White's structural liabilities, rather than judged by a general

principle. The game continuation also shows the importance of resilient defence: Phil fought impressively well once he had to part with a pawn, although he couldn't quite save the game in the end.

Puzzle 12



Black to play – Level 6

Show/Hide Solution

Puzzle 12 – A Bit of Calculation

Penny Wood
Elo 1443

00:15 White certainly has got some pawns!
00:40 White also has a passed d-pawn that could become handy. I would like to get rid of White's passed d-pawn.
00:50 1...♘e2† and take the pawn is my first thought.
01:30 1...♘e2† 2.♔h2 and now I could push my a-pawn. I could either push my a-pawn right away or play 1...♘e2† first. It's a sticky one!
02:15 1...♘e2† 2.♔h2 ♘xd4 3.♖h8
03:00 Should Black go for a draw or push the a-pawn up? I would go for the knight check first and hang on to my pawn.
03:30 I think it is better to take the d-pawn and then I would have my king, rook and knight to help push my pawn up the a-file.

04:00 I go for **1...♘e2†**.

Evaluation: –1.0
Maybe I am a bit optimistic.

John Green
Elo 1563

00:20 First impression, Black has a chance to queen the a-pawn.
00:30 But White can give checks with the rook for a draw.
01:40 Black can also play 1...♘e2†. If 2.♔h1 or 2.♔f1 then Black can take on g3 and fork the rook, which would be very advantageous.
02:30 If 1...♘e2† White can play 2.♔f2 or 2.♔h2. Then I could push my a-pawn. Then White would have to give check with his rook.
03:00 I don't know if to push the pawn or to give check.
03:30 My move would be **1...♘e2†**.

Evaluation: –2.0

Philip Hurtado
Elo 1924

01:00 My first thought is that "passed pawns should be pushed". But after 1...a3 then comes 2.♘b4 and I am stopped in my tracks.
01:50 I can't play 1...♖b2 (as he takes me), nor 1...♖c1†. But I could play 1...♖d2.
03:30 I can also play 1...♘e2†, and then taking on either d4 or g3. After 1...♘e2†, White's only option is 2.♔h2, and then I can take on d4 threatening ...♘xf3†. This seems good enough for at least a draw, as I still have my passed pawn.
06:40 Also 1...a3 immediately. As after 2.♘b4 I have 2...♖b2, now that I think of it.
09:00 1...a3 seems to win. He has to do something then with his rook. Maybe rook check or ♖h8. I will explore 1...a3 further.
14:00 After 1...a3, best is probably 2.♖h8 trying to put his rook behind my pawn. But then comes 2...a2!. Then he only has 3.♖b8† or 3.♖a8. The check loses to 3...♔a7. So he only has 3.♖a8. Then probably 3...♔b5 to prepare ...♘a4.
14:35 I think **1...a3** is the right move.

Evaluation: –2.4

Akshaya Kalaiyalahan
Elo 2149

01:00 I am looking at 1...a3 at the moment.
03:00 Still thinking on 1...a3, but also debating if I should play 1...♘e2† and take on d4.
06:55 I am going to play 1...a3.
07:00 I was looking at 1...a3 2.♘c5 with the idea of ♘b3 trying to stop the pawn. But I can play 2...a2 anyway and if 3.♖h6† ♔b5 4.♖a6 ♘e2† 5.♔f1 ♘xd4.

1...a3

Michael Adams
Elo 2701

Evaluation: –2.0

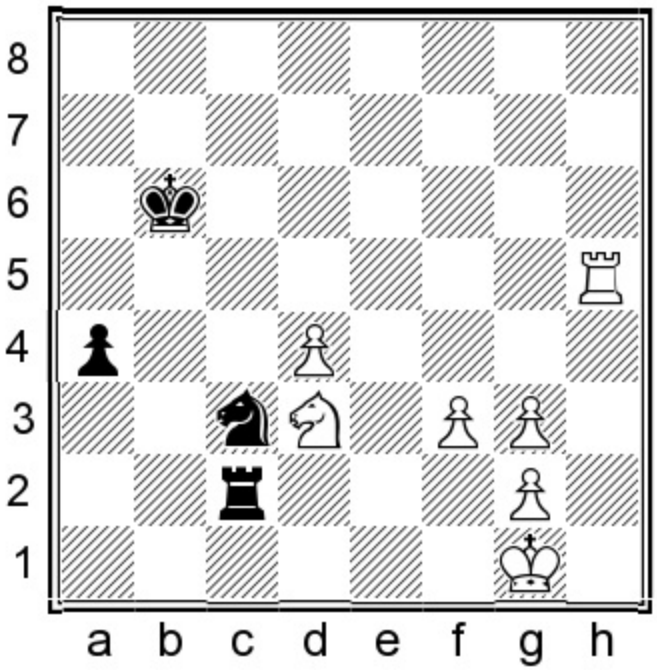
00:30 Black is three pawns down, but has a strong passed a-pawn.
01:00 First impression is that 1...a3 has to be investigated. 1...♘e2† also has to be considered, which forces the king to go to h2.
01:30 But the knight seems more useful on c3. So let's start with 1...a3.
02:30 It is quite tricky to stop the pawn. White has to give up his rook. Although the game would not be exactly over as he still has a few pawns. But probably winning for Black.
06:30 1...♘e2† 2.♔h2 a3 3.♖c5 a2? 4.♖xc2 is surely a defence.
07:45 1...a3 immediately has the advantage that the white king is still on the back rank ready for checks. Whereas 1...♘e2† seems too slow somehow.
09:20 1...a3 2.♘b4 ♖b2 looks good for Black.
10:30 1...a3 2.♘b4 ♖b2, and if 2.♖h8 a2 3.♖a8 ♖d2 with the idea of ...♖d1† or ...♖xd3.
11:00 It looks like to me that 1...a3 is the best move.
12:15 1...a3 2.♘b4 ♖b2 3.♖c5 ♖xb4 4.♖xc3 a2 and Black is doing very well.
1...a3

Evaluation: –2.0

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



"Passed pawns must be pushed" is the right advice here. Black's rook and knight are well situated to aid the promotion, and White's small army is not conveniently placed to impede it. Hence one black pawn outweighs four white ones here, but it must be moved forwards as quickly as possible.

1...a3!

This is much stronger than:

1...♘e2†? 2.♔h2

Obviously 2.♔f2?? ♘f4† must be avoided.

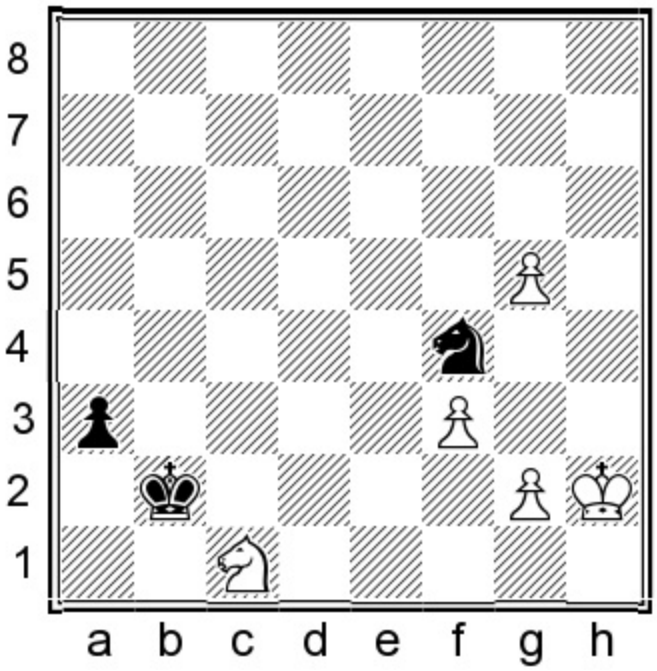
White's king was already much too far away to slow down the a-pawn, so it is counterproductive for Black to misplace the knight to nudge it away – especially as the pawn will no longer threaten to promote with check. The knight does a better job of supporting the passer from c3.

2...a3

2...♘xd4 gives White a choice between safeguarding the f3-pawn or moving the rook via h8-a8 immediately. Either way, it should be a draw.

3.♘b4!

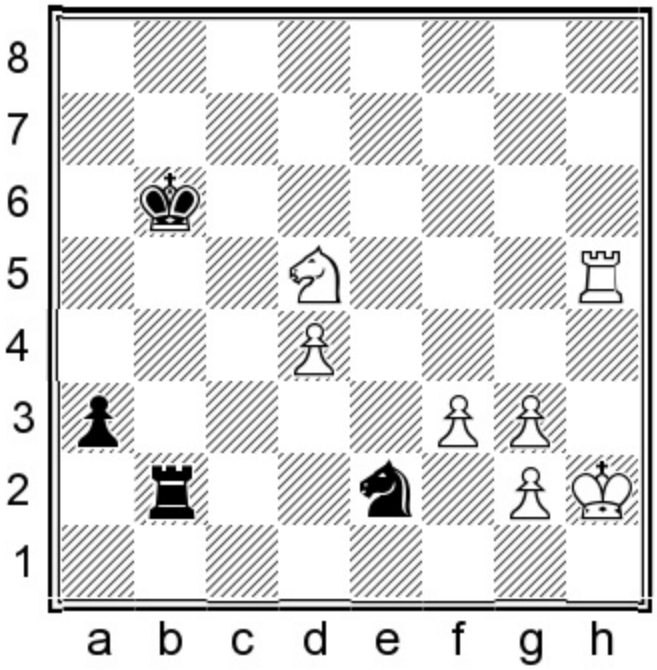
3.♖c5 also holds, but only just. 3...♖xc5! (3...a2? 4.♖xc2 a1=♕ 5.♖xe2 ♕xd4 6.♘e5+– leaves White with too much material against the queen.) 4.dxc5† (4.♘xc5? ♘xd4–+) 4...♔b5 5.♘b4! Desperate measures are required. 5...♔xc5! (5...♔xb4 6.c6 a2 7.c7 a1=♕ 8.c8=♕ leaves White out of danger) 6.♘a2 ♔c4 7.g4 ♔b3 8.g5 ♘f4 9.♘c1† ♔b2



10.♘d3†! ♘xd3 (10...♔c2 11.♘b4† ♔b3 12.♘d3 repeats) 11.g6 The g-pawn is unstoppable and, even if White's remaining two pawns were removed, Black's extra knight would not be enough to win.

3...♖b2 4.♘d5†

There is no good place for Black's king to hide.



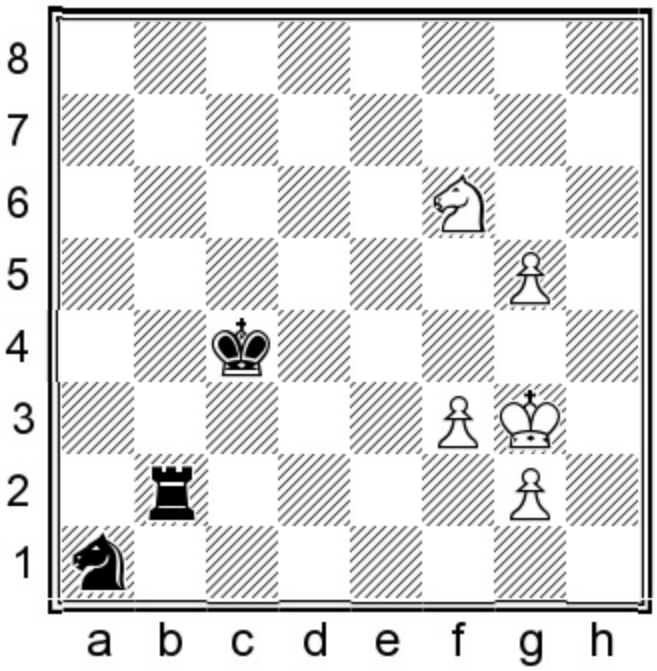
4...♔b7

This is the only serious way to keep playing for a win.

4...♔c6 5.♘c3! is a nice trick.

4...♔a6 5.♖h8 a2 6.♖a8† ♔b5 7.g4 also draws.

5.♖h7† ♔a6 6.♖h8 a2 7.♖a8† ♔b5 8.g4 ♔c4 9.♘f6 ♘xd4 10.♔g3 ♘c2 11.g5 a1=♕ 12.♖xa1 ♘xa1

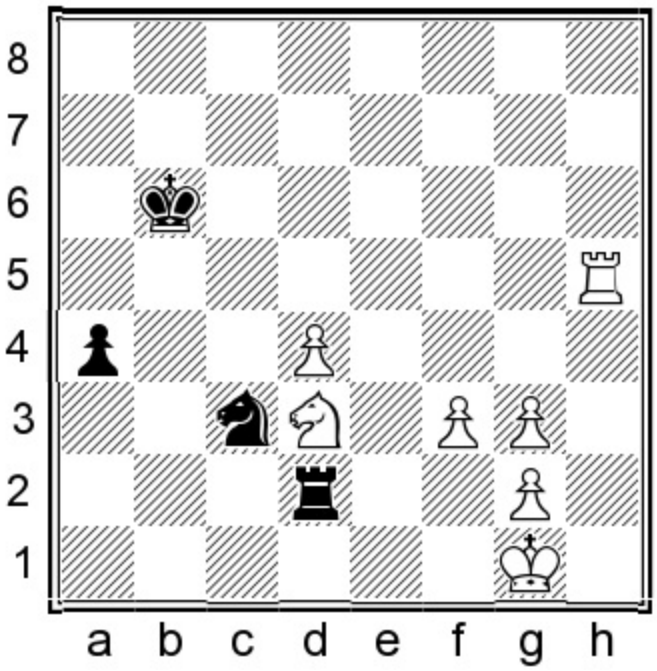


13.g6 ♖b7 14.♔h4 ♘c2 15.g4 ♘d4 16.f4

White's pawns, which by now are looking fairly menacing with Black's pieces stranded on the queenside, are far enough advanced to draw.

1...♖d2!?

This is the second-best move. It gains time by attacking the knight, but is still less good than simply advancing the pawn. Unpicking this position is complicated, but it appears White can hold on by the narrowest of margins.



2.♖h6†!

a) 2.♘b4? ♖b2 would justify Black's play: 3.♘d5† (3.♘d3 ♖b1† 4.♔f2 a3–+) 3...♘xd5 4.♖xd5 a3 5.♖d8 ♔b7 6.♖d7† ♔a6 7.♖d8 a2 8.♖a8† ♔b7 9.♖a4 ♖b1† 10.♔f2 a1=♕ 11.♖xa1 ♖xa1 12.g4

♔c6 13.g5 ♔d5 Black wins.

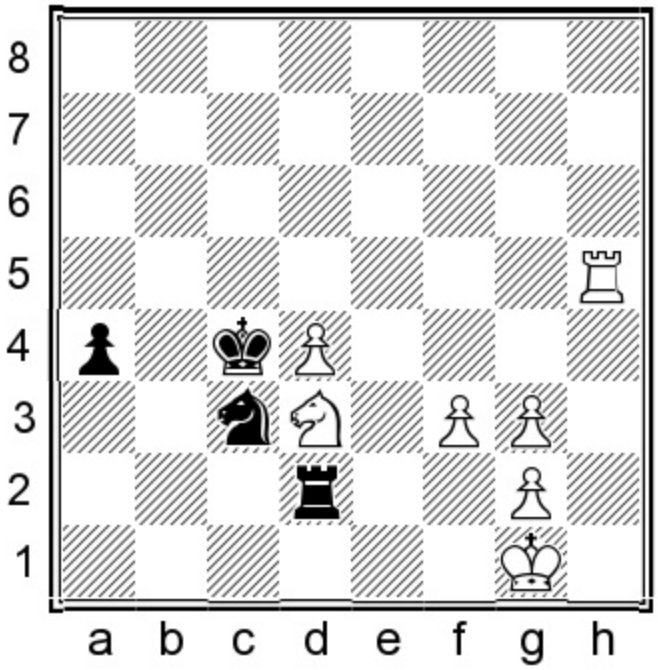
b) 2.♘e5!? requires Black to show considerable precision to win the game. 2...♖xd4 3.♖h6† (3.♖h8? a3–+) 3...♔b5 4.♖c6! A good try. 4...♘e2†! 5.♔f2 ♖d5! Forcing White's rook away from the a-pawn. 6.♖e6 a3 Now there are three lines:

b1) 7.♔xe2? a2–+ is the simplest of them.

b2) 7.♖e8 a2 8.♖b8† (8.♖a8 ♘c3–+) 8...♔c5! 9.♖c8† ♔b6 10.♖b8† ♔c7 11.♖a8 ♘c3 12.♖a3 ♔d6 13.♘c4† (13.♘g4 ♖d1–+) 13...♔c5 Black wins.

b3) 7.♘c4 a2! 8.♘a3† ♔a5 9.♘c2 (9.♖e8 ♘c3! [but not 9...a1=♕?? 10.♖a8† ♔b6 11.♘c4† ♔b5 12.♖xa1+–] 10.♖a8† ♔b6 11.♘c4† ♔c5 12.♘e3 ♖d2† 13.♔g1 ♖e2–+) 9...♘c3! 10.♔e3 ♖d1 White still can't stop the a-pawn. 11.♖e8 ♘a4 12.♖a8† ♔b5 13.♖b8† ♘b6 Followed by ...♖c1 and Black wins.

2...♔b5 3.♖h5† ♔c4



4.♘e5†

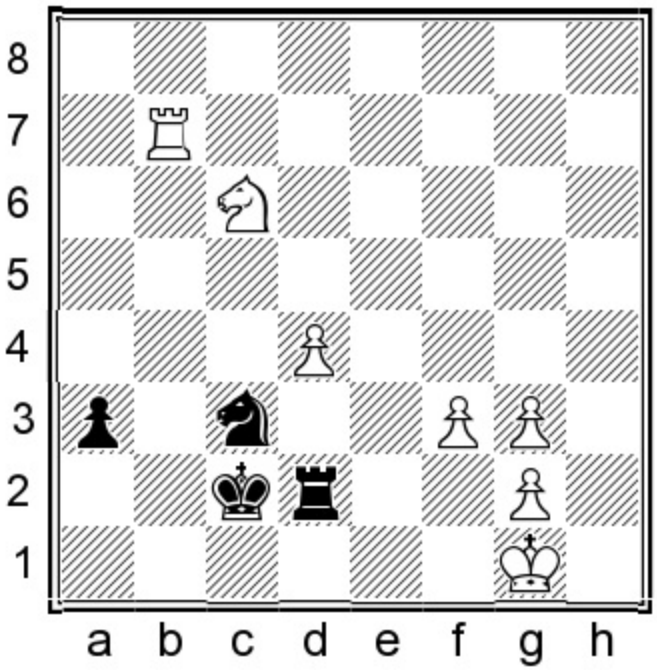
A step away from the pawn, but White saves the knight with gain of tempo.

4...♔b3

4...♔xd4 5.♘c6† ♔c4 6.♘a5† ♔b4 7.♘c6† keeps the annoying checking going.

5.♖h7 a3 6.♖b7† ♔c2 7.♘c6!

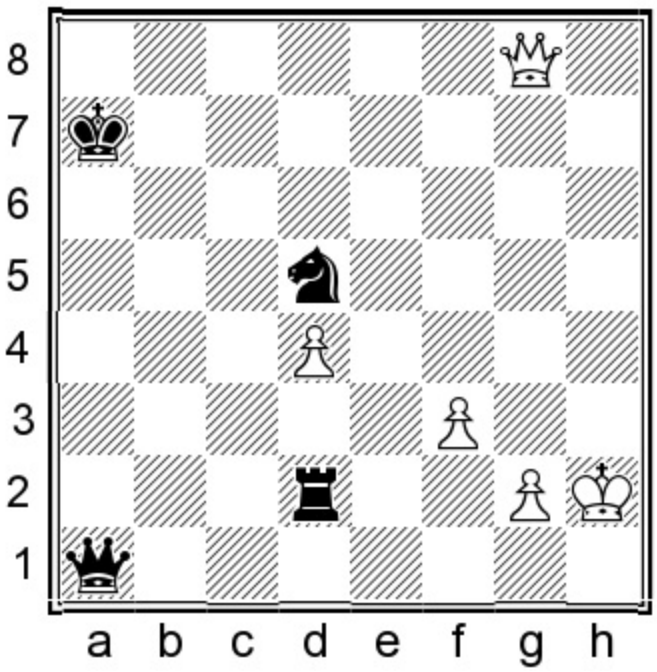
Delaying the pawn tactically due to the potential fork on b4.



7...♖d1†

7...a2? 8.♘b4† and White is out of danger.

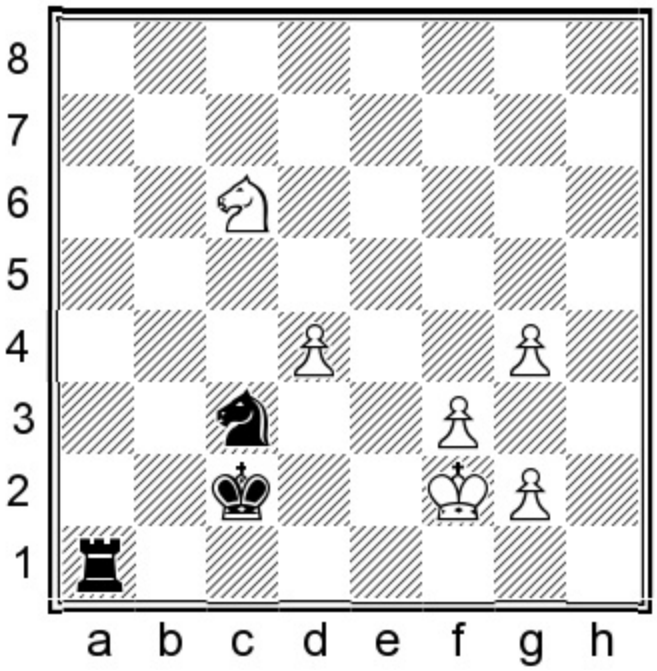
7...♘d5!? is a reasonable attempt, although White can draw with precise play: 8.♖a7 ♔b2 9.♔h2 a2 10.♖b7† ♔c3 11.♖a7 Black's problem is that there is no easy way to force the pawn over the line without losing a lot of time. 11...♔c4 (11...♔b2 12.♖b7†=) 12.g4 ♔b5 13.g5! ♔xc6 (13...♘f4 14.♔g3 ♘e2† 15.♔h4 ♔xc6 16.g6 ♘xd4 17.g4 ♔b6 18.♖a3 ♘xf3† 19.♔g3 ♖d3 20.♖xa2 ♘e5† is a clear draw) 14.g6 White's passer advances in the nick of time. 14...♔b6 (or 14...♘f4 15.g7 ♖xg2† 16.♔h1 ♔d5 17.♖xa2 ♖xg7 with a technically drawn endgame) 15.g7 ♔xa7 16.g8=♕ a1=♕



17.♕g7†! With a draw. White will continue checking on g7 and g8 until one of two things

happens: either Black allows the knight to be captured with check or moves the king to the 6th rank, at which point ♕h6† collects the rook.

8.♔f2 ♖b1 9.♖a7 a2 10.g4 a1=♕ 11.♖xa1 ♖xa1

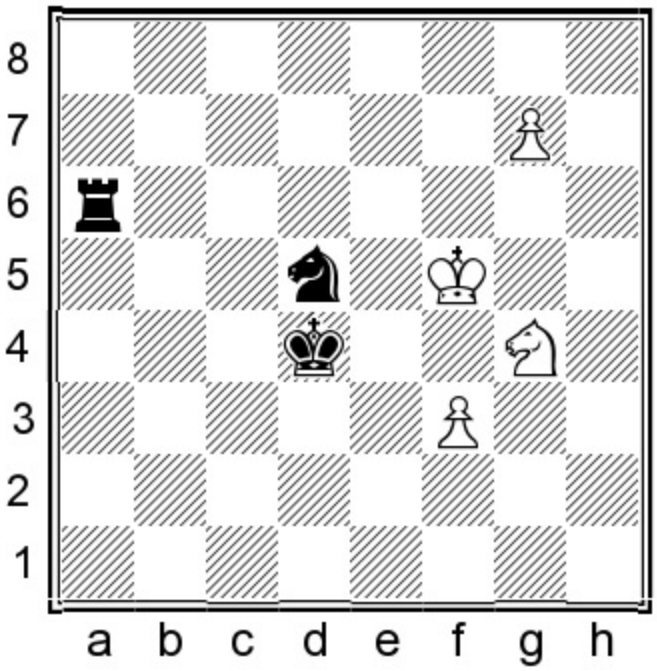


12.♔e3

White's king is well placed to support the pawns, and also impedes its counterpart.

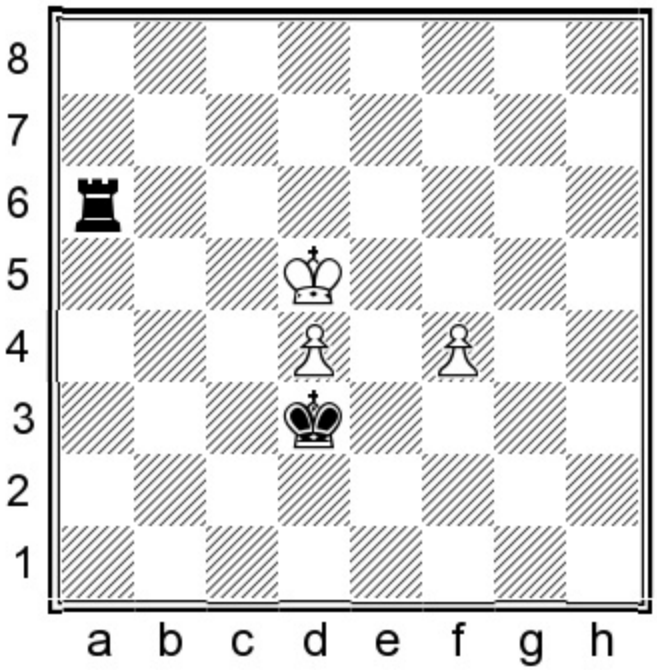
12...♖g1 13.♔f4 ♖xg2 14.♔f5 ♔d3 15.g5 ♘d5 16.g6 ♖c2

The alternative is: 16...♔e3 17.♘e5 ♔xd4 18.♘g4 ♖a2 19.g7 ♖a6



20.g8=♘! An amusing way to reach a drawn endgame. (20.g8=♕? loses to 20...♘e7† of course.)

17.♔e5 ♖xc6 18.♔xd5 ♖xg6 19.f4 ♖a6



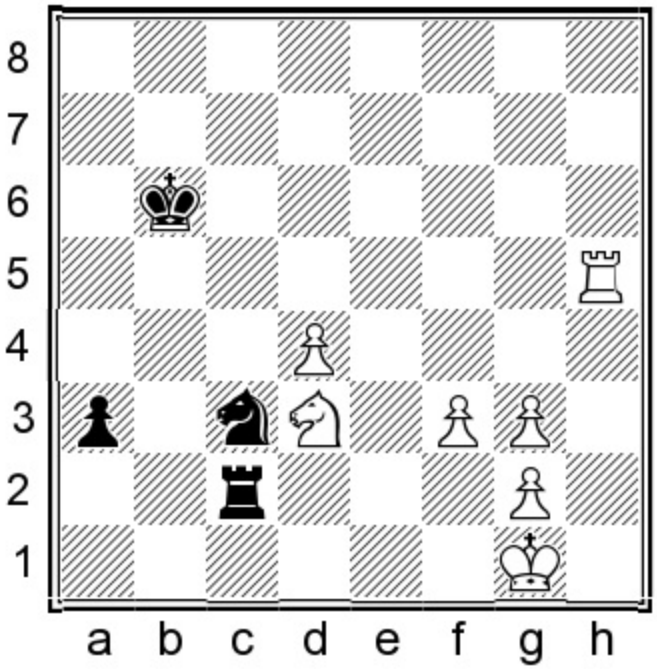
20.♔e5!

Simplest, although 20.f5 ♖a5† 21.♔e6 ♔xd4 22.f6 ♖a6† 23.♔e7 ♔e5 24.f7 ♖a7† 25.♔e8 ♔e6 26.f8=♘† also draws by a whisker.

20...♖a5† 21.d5 ♔c4 22.f5 ♖xd5† 23.♔e6=

White's final pawn is the equal of Black's extra rook.

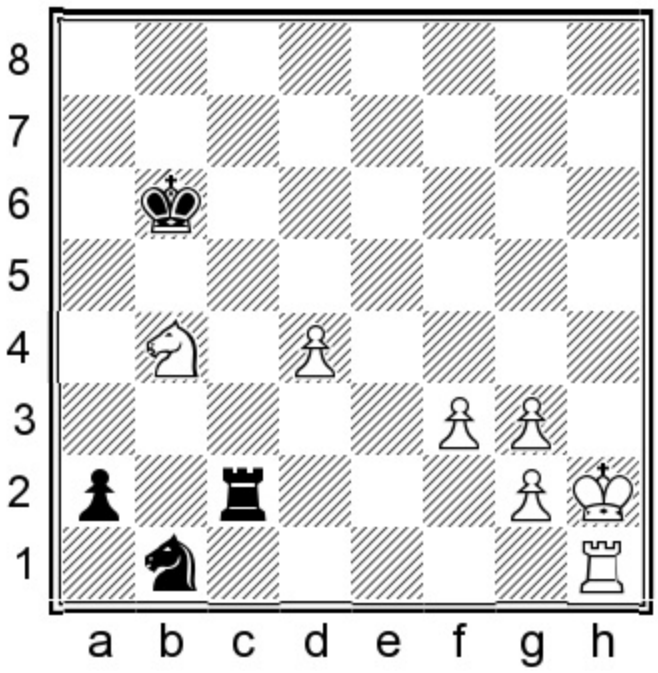
Of course it would be impossible to calculate anything close to all of the above analysis when making the decision at the board. However, when you compare the above attempt to the correct winning line, you can start to develop a sense of why one approach is more effective than the other, which should help to improve your future decision-making.



2.♖h8

Driving the king up the board doesn't help: 2.♖h6† ♔b5 3.♖h5† ♔c4 4.♘e5† (4.♖a5 a2–+) 4...♔b3 (4...♔xd4 5.♘c6† ♔c4 6.♖a5 a2–+ also works) 5.♘d3 a2 6.♖a5 ♘a4 7.♘c5† ♖xc5 Black wins.

2.♖h1!? is clever but insufficient: 2...a2 3.♔h2 ♘b1! 4.♘b4



4...♖xg2†! 5.♔xg2 a1=♕ Black wins.

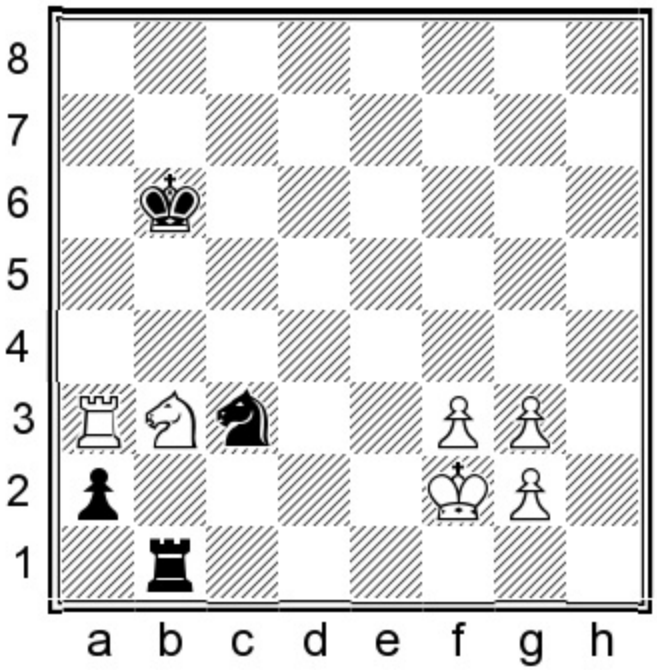
2...a2 3.♖a8 ♖d2

Attacking the knight and threatening ...♖d1†. Comparing this position to the one after 1...♖d2!? in the notes above, we can get a clear sense that Black's plan is working more efficiently with the pawn just one step from promotion.

4.♘b4

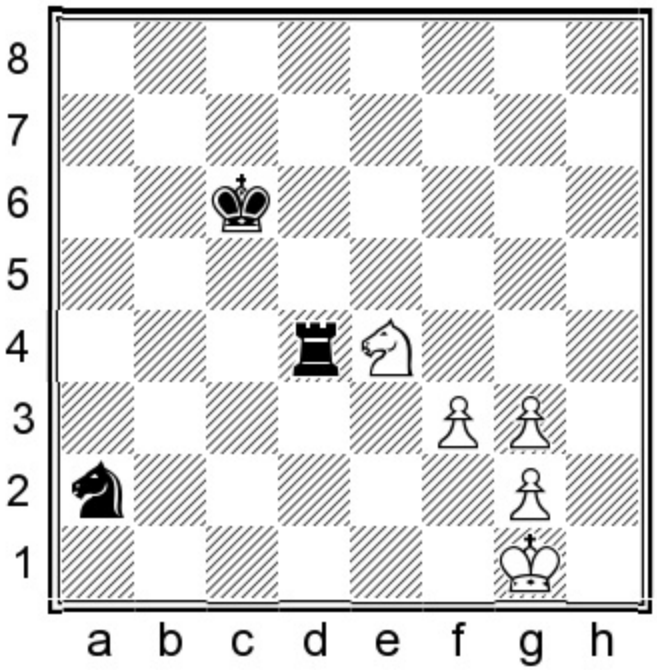
This way White sacrifices the rook immediately, but other attempts are no better:

4.♘c5 ♖xd4 5.♘b3 looks natural but it quickly loses to a concrete tactic: 5...♖d1† 6.♔f2 ♖b1 7.♖a3



7...♖xb3! 8.♖xb3† ♘b5–+ The pawn is unstoppable.

4.♘f2 ♖xd4 The point is not to capture an irrelevant pawn, but rather to prepare ...♘a4 or ...♖a4 to interfere with the enemy rook. 5.♖xa2 ♘xa2 6.♘e4 ♔c6

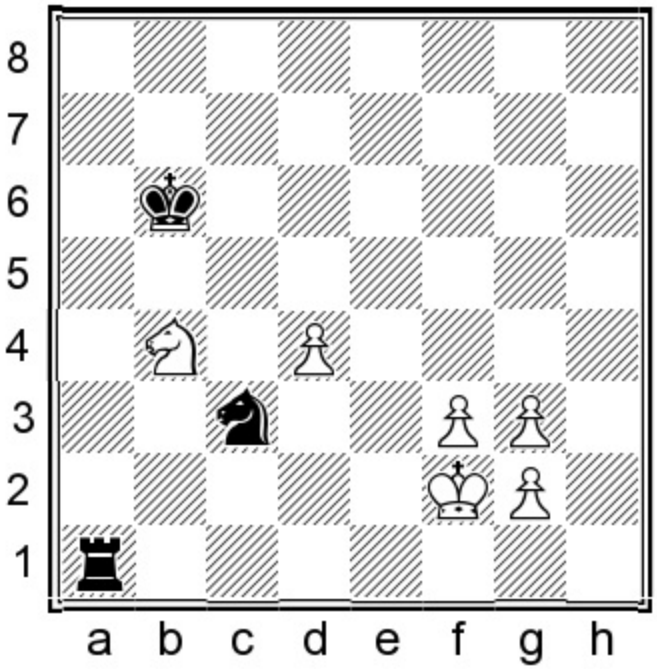


White's knight is secure but the pawns aren't too dangerous yet. By the time they have edged forward, Black will have organized a welcoming committee. 7.g4 ♔d7 8.g5 ♔e6 9.g6 ♘b4 10.g4 ♘d5 11.♔f2 ♘e7 12.g7 ♔f7 13.♘g5† ♔f6 Black wins.

4...♖d1† 5.♔f2 a1=♕ 6.♖xa1 ♖xa1

The four pawns will be gradually rounded up. There are various ways to do it, so I will just give a

few illustrative lines which seem logical to me.



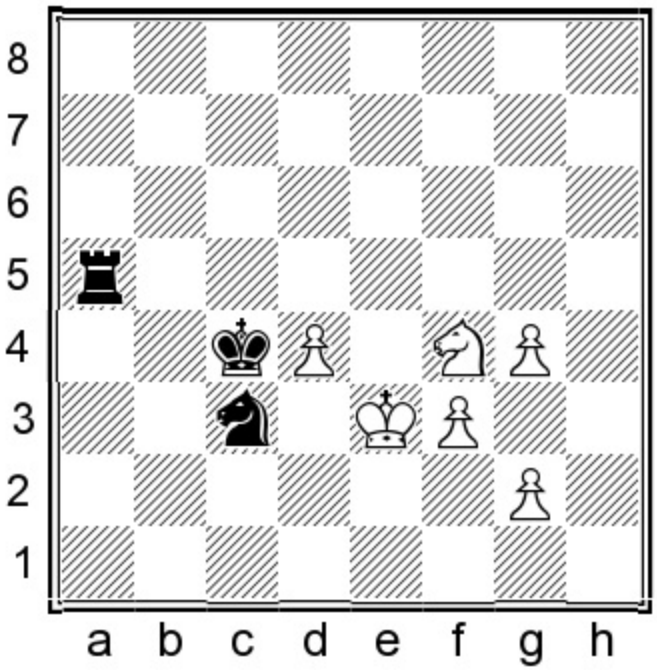
7.g4

7.♔e3 ♔b5 8.♘d3 ♔c4 9.g4 ♖a2 transposes.

7...♔b5 8.♘d3 ♔c4 9.♔e3 ♖a2 10.♘f4 ♖a5

Leaves White without a useful move.

10...♘d5† 11.♘xd5 ♔xd5 also wins.



11.♘e6

11.♘h5 ♖d5 12.♘f6 ♖xd4 13.g5 ♘d5† 14.♘xd5 ♔xd5 15.g6 ♔e5 wins comfortably.

11...♔d5 12.♘f4† ♔d6–+

Black gets the king goal-side and White's pawns are not dangerous, as they currently have no way to advance.

Scoring for Puzzle 12

Best move	Score	Evaluation
1...a3	**10**	**–2.4**
1...♖d2	4	–1.4
1...♘e2†	1	0
1...Others	1	

Bonus points for correct evaluation

Between –0.9 and –1.39	1 point
Lower than –1.4	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Of course I thought of pushing my pawn with 1...a3, but was worried that White could play ♘b4 and sacrifice the knight for the pawn if I pushed it further to a2. I remember spending most of my thinking time looking at tricks stemming from 1...♘e2†. I did not see any forced lines, apart from that White has to reply 2.♔h2. I was finally lured into playing it anyway, as I thought some hidden combination may pop up.

I thought this position would be interesting because I speculated many weak players would follow a similar train of thought to mine, and would prefer playing for a vague tactical solution rather than calculating the endgame in a methodical manner. Often players below 1600 are not able to calculate the consequences of pushing the pawn, and tend to go for 1...♘e2†, as it has many immediate clear pluses: it creates forking opportunities, and also enables Black to capture White's passed d-pawn. The puzzle also reinforces my theory that weak players play more on intuition and less on calculation.

When I analysed the position later I had the feeling pushing the pawn might have been the correct

move, and managed to make the correct decision with more time to think.

Adams Insight

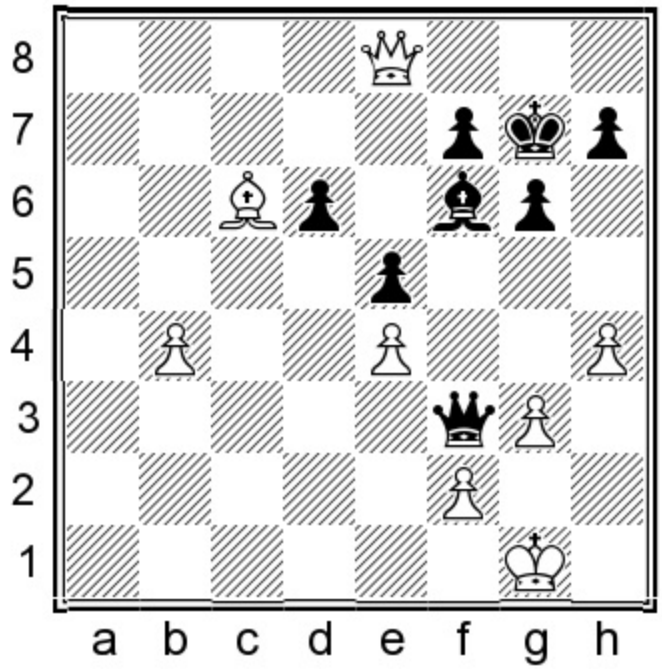
Knights are known to be less than great at stopping outside passed pawns; and after 1...a3!, even with the help of the rook, that ultimately proved to be the case here. Nevertheless, knights remain very tricky pieces, and some of the lines after the plausible 1...♖d2!?, which isn't quite so direct, demonstrate that a knight's capabilities should not be underestimated. Later in that line, the clever 7.♘c6! really leaves White hanging on by a thread. The delay in advancing the a-pawn makes an important difference: when you are so close to queening, every step forward is extremely significant.

Good concentration is vital when navigating these positions where knights have free reign, as it could be easy to miss an important fork somewhere in your calculations.

Positions 13-16

Temptations

Puzzle 13



White to play – Level 7

Show/Hide Solution

Puzzle 13 – Perpetual Awareness

Ray Carpenter
Elo 1767

00:40 1.♗d5
00:45 Black loses a piece.

01:00 Evaluation: White wins.

Andrew McCumiskey
Elo 2017

00:30 Opposite-coloured bishops, could be fairly drawish. But there is an attack on f7.
00:45 1.♗d5 is my first thought. And Black's bishop has nowhere to go, which is convenient.
01:00 He doesn't have any perpetual with his queen.
03:00 1.♗d5 is my candidate move, followed by trotting down my b-pawn.
03:30 1.♗d5 is a pretty good option and I can't see any tricks.

Evaluation: This is a win for White

Juan Reyes
Elo 2451

00:30 How does Black defend against b5 and b6? I guess if it were Black to play he would continue 1...♗xh4, getting a perpetual.
01:30 If White plays 1.♗d5 then 1...♕d1† 2.♔g2 wins for White. So the only reply is 1...♗xh4.
02:30 The question is what happens after: 1.♗d5 ♗xh4 2.♕xf7† ♕xf7 Who wins the pawn endgame? After the exchanges, the black king is only five steps away from the b-pawn.
04:00 In fact, Black might win the endgame. So we can't exchange queens.
05:15 Ah! White has good winning chances. You know how? 1.♕d7! This move avoids the perpetual. 1.♕d7 ♗xh4? 2.gxh4 ♕f4, and now White can either play 3.♕h3 or 3.♗d5 winning.
05:30 1.♕d7 ♔g8 2.♗d5 ♗g7 3.♕e8† ♗f8 4.b5 wins.
06:00 Yes. I play **1.♕d7**.

Evaluation: >+3.0

Julio Granda
Elo 2630

00:25 The most natural move is 1.♗d5, but Black can play 1...♗xh4 and get a perpetual. So we have to look at other options.
00:50 1.♗d5 ♗xh4 2.♕xf7† leads nowhere after the exchange of queens.
01:30 What other move can I play? It seems this position stems from a Sicilian. I am now thinking of a possible good move: 1.♕d7!
02:00 This removes the option of Black checking me on g4. And now the threat of 2.♗d5 is very strong.

02:30 Let's see what happens after 1.♕d7 ♔f8. Now I simply play 2.b5, and Black is against the ropes.
02:50 So Black's only try is 1.♕d7 g5.
05:00 1...g5 is a desperate attempt, but does complicate matters a bit. After 2.hxg5 Black staves off the pressure. And after 2.h5 he has 2...♕d1† and ...g4.
06:00 1...g5 does complicate matters.
06:45 Still, the move is **1.♕d7**.

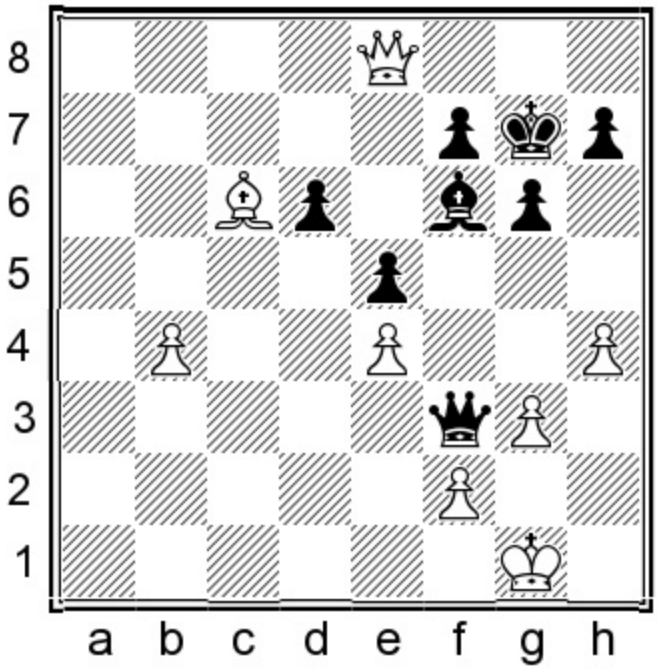
Evaluation: +1.3

Deeper Analysis by Michael Adams

Michael Adams – David Navara

Biel 2015

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 a6 6.g3 e5 7.♘de2 ♗e7 8.♗g2 b5 9.♘d5 ♘bd7 10.♘ec3 ♗b7 11.a4 ♘xd5 12.♘xd5 0-0 13.axb5 axb5 14.♖xa8 ♗xa8 15.0-0 ♘c5 16.b4 ♘e6 17.h4 ♗xd5 18.♕xd5 ♘d4 19.c3 ♘e2† 20.♔h2 ♘xc1 21.♖xc1 ♕b6 22.♔g1 ♖b8 23.♖a1 g6 24.♖a8 ♖xa8 25.♕xa8† ♔g7 26.♗f1 ♕c7 27.♕e8 ♗f6 28.♗xb5 ♕xc3 29.♗c6 ♕f3



This is a puzzle where it is important to consider the opponent's ideas, and how to negate them before carrying out White's own plan. Although material is limited, with queens still remaining on the board, king safety is paramount, and Black's queen is very actively placed.

30.♕d7!

Taking a timeout to secure White's own king before upping the pressure on f7.

It is tempting to take the bishop to its best post immediately, as clearly White would like to play:

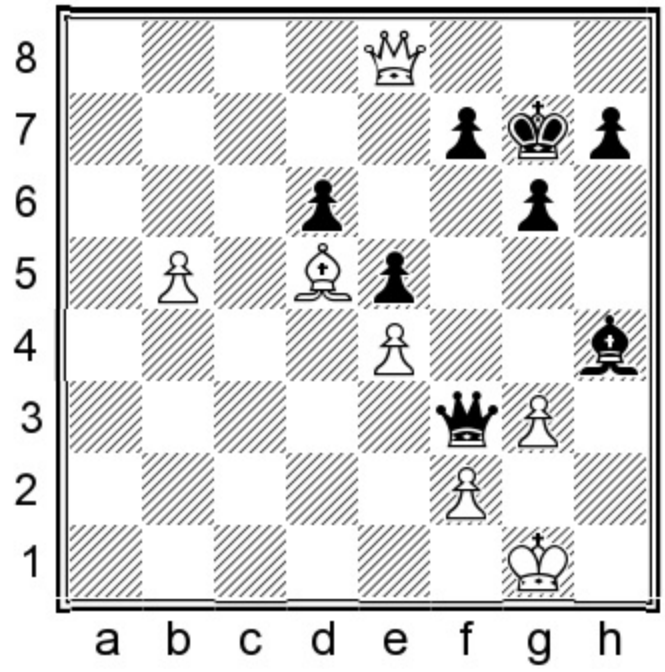
30.♗d5?

But this allows Black to open up White's king and secure the draw with:

30...♗xh4! 31.b5!?

31.gxh4 ♕g4† is a trivial draw. For instance, 32.♔f1 ♕d1† 33.♔g2 ♕g4† 34.♔h2 ♕xh4† 35.♔g2 ♕g4† with perpetual check.

The attempt to swap queens and then promote the b-pawn also doesn't work:



31...♗xg3

An alternative drawing method is 31...♗g5!? 32.b6 ♗e3! 33.fxe3 ♕d1† 34.♔f2 ♕d2† when White has no hope of escaping from the checks.

32.♕xf7†

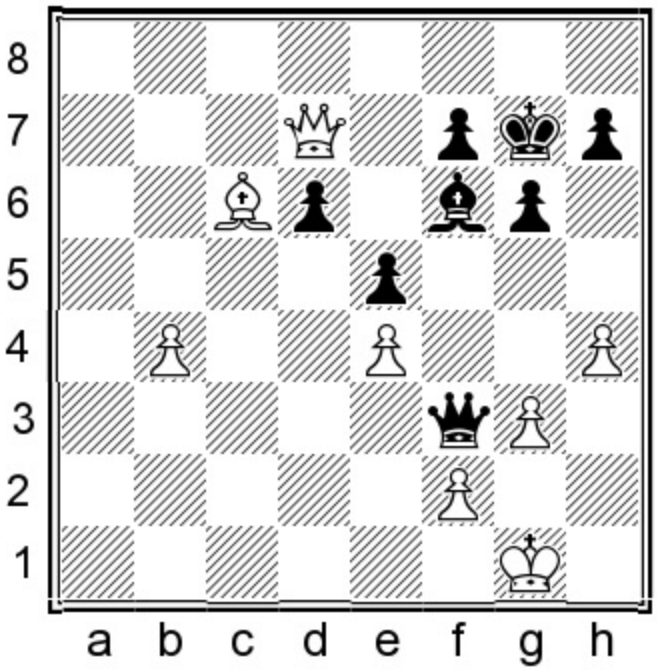
32.fxg3 gives Black a few drawing options, the most efficient being 32...♕d1†! 33.♔f2 ♕d2† 34.♔f3 ♕d3† and White must allow the perpetual, since 35.♔g4?? allows 35...♕d1† 36.♔h3 ♕h1† 37.♔g4 ♕h5 mate!

32...♕xf7 33.♗xf7 ♗h4!

33...♔xf7? 34.b6+– leaves Black powerless to stop the pawn.

34.b6 ♗d8=

With an obvious draw.



30...g5!

David finds the best try, giving his king some air and trying to generate some threats of his own.

King moves don't help: 30...♔f8 31.♗d5 ♗g7 32.♕d8 is mate; and 30...♔g8 31.♗d5 ♗g7 32.♕d8† ♗f8 33.b5 ♔g7 34.b6 is hopeless for Black.

31.hxg5?

The correct move was:

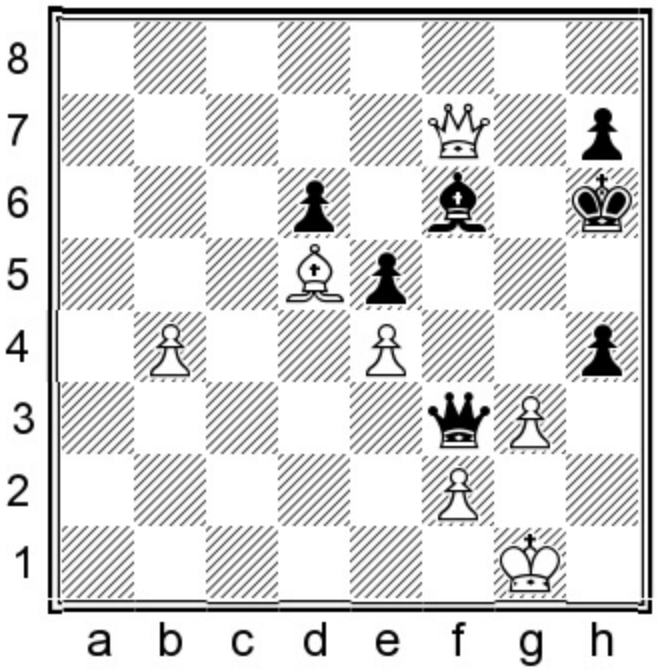
31.♗d5!

Unfortunately I was unable to calculate this precisely to the end.

31...gxh4

The passive defence 31...♕h5 clearly fails after: 32.g4 ♕g6 (32...♕xh4 33.♕xf7† ♔h6 34.♕xf6#) 33.h5+–

32.♕xf7† ♔h6

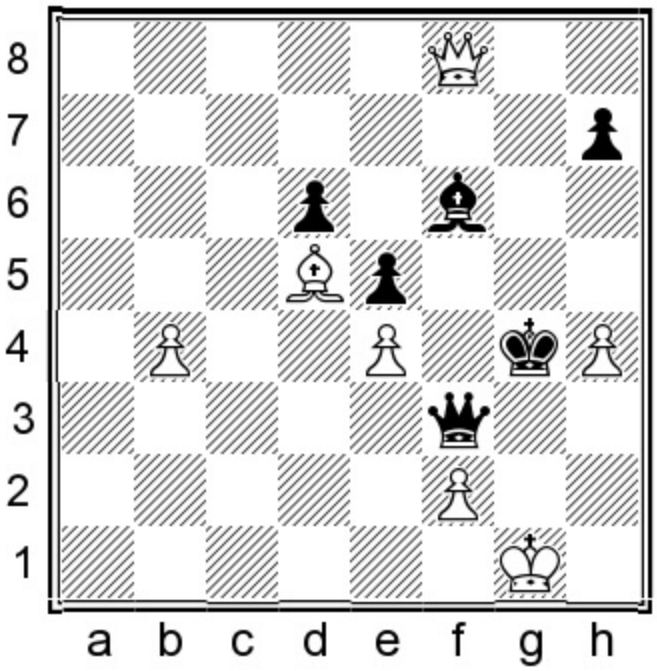


I wasn't too sure about this, as my own king will become exposed, and I had concerns about driving Black's king up the board and finding that it was able to join in an attack on mine. However, with accurate play White can land the first, decisive blow.

33.♕f8† ♔g6

33...♔h5? is the weakest of the possible king moves: 34.♗f7† ♔g4 35.♕g8†! ♗g5 (35...♔h3 36.♗e6† is all over) 36.♕c8† The king is caught.

33...♔g5 34.gxh4† ♔g4 demands an accurate response:



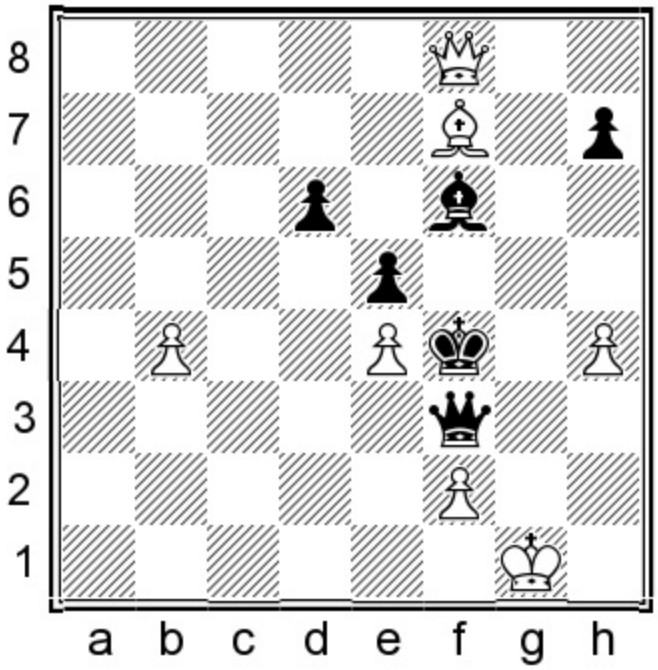
35.♕h6! An important move, cutting off flight squares for the black king while creating the deadly threat of ♗e6†. I didn't appreciate the strength of this during the game. White's queen covers the dark squares whilst my bishop takes care of the light-square diagonals. 35...♕d1†

(35...♔h3 36.♗e6† is a key detail to prevent mate on g2.) 36.♔h2 ♕d3 37.♕xf6+–

34.♗f7† ♔g5 35.gxh4† ♔f4

35...♔xh4 36.♕h6† ♔g4 37.♕h5† ♔f4 38.♕f5#

35...♔g4 36.♕h6! is virtually the same as 35.♕h6! in the note to move 33 above. Here the white bishop is on f7 instead of d5, so 36...♕xe4 is possible, but 37.♗e6† ♔f3 38.♕h5† ♔f4 39.♕g4 is mate.



36.♗e6!

After a series of forcing moves, White needs to realize there is time to continue more calmly. I also underestimated the strength of this poisonous little move. Covering g4 is key before proceeding with aggressive operations.

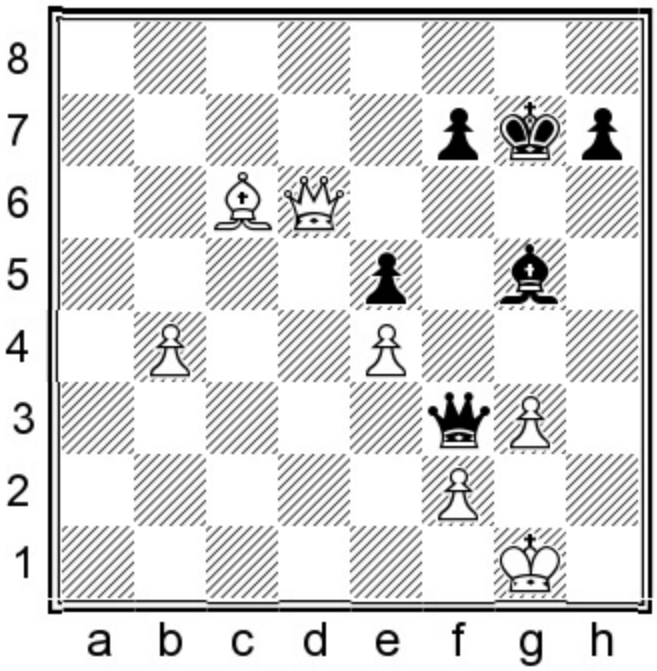
36...♔xe4

36...♕d1† 37.♔h2+– wins the bishop.

37.♗d5†! ♔xd5 38.♕a8†+–

A pleasing tactical conclusion.

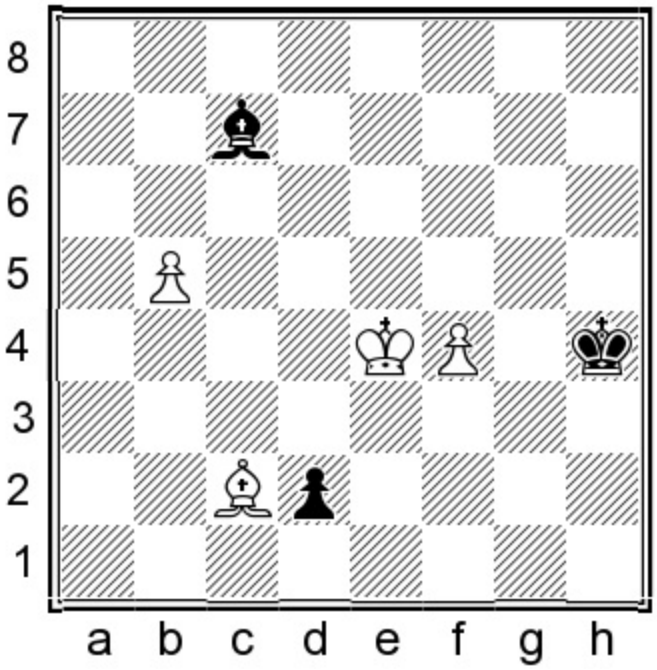
31...♗xg5 32.♕xd6



White is much better due to the extra pawn and superior structure, but the reduced material and opposite-coloured bishops offer Black some saving chances. Still, the defensive task is extremely tough. David fought hard, but I got the win in the end.

32...♕c3 33.♔g2 ♕b2 34.♕c5 ♕d4 35.♕xd4 exd4 36.f4 ♗e7 37.b5 ♗c5 38.e5 d3 39.♗e4 d2 40.♗c2 f6 41.exf6† ♔xf6 42.♔f3 h5 43.♔e2 ♗d6 44.♔e3 ♗c7 45.♗d1 h4 46.gxh4 ♔f5 47.♗c2† ♔g4 48.♔e4 ♔xh4

48...♗xf4 49.♗d1† ♔g3 50.h5 wins.



49.♗d1 ♗d8 50.♔d5 ♔g3 51.f5 ♔f4 52.♔e6 ♔e4 53.♗c2† ♔d4 54.♔d7 ♗b6 55.f6 ♔c3 56.♗d1

1–0

Scoring for Puzzle 13

Best move	Score	Evaluation
1.♕d7	**10**	**+6**
1.♗d5	1	0
1.Others	1	0

Bonus points for correct evaluation

Between +1.4 and +2.49	1 point
More than +2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

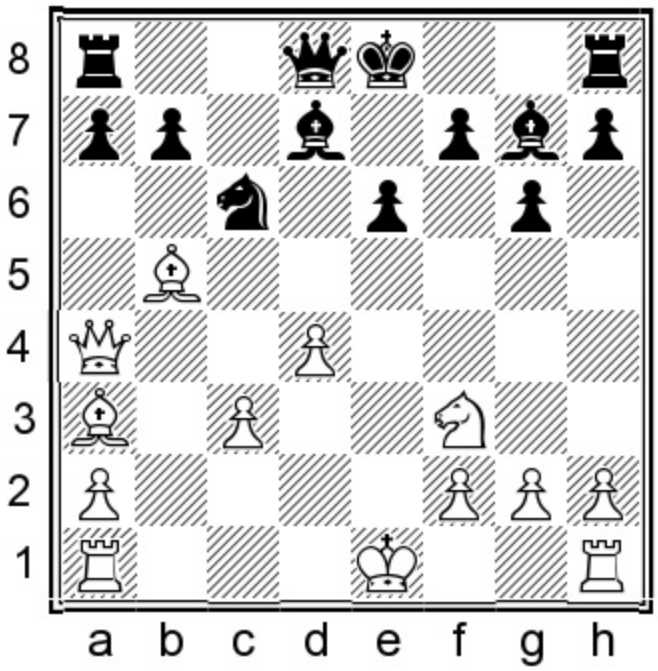
The solution to this puzzle is a beautiful move that most club players fail to find. The apparent simplicity of the position is deceptive: most players will see 1.♗d5 and look no further. Strong players, as I have said many times throughout this book, notably put themselves in the opponent's shoes, and work hard to find all the available resources.

Adams Insight

The concept of perpetual check is the key here. For strong players, the fact that 1.♗d5? ♗xh4 2.gxh4 ♕g4† leaves no escape from the checks is clear. Granda and Reyes both spotted this possibility within thirty seconds. Andrew McCumiskey had the idea, but only as a passing thought. This position should scream perpetual check possibilities. McCumiskey still failed to spot the checking pattern, despite pausing to think for an additional two minutes after initially dismissing Black's checking possibilities.

Probably weaker players rarely consider perpetual check patterns from a distance during their games. Also, the fact that in some cases they didn't try to calculate 1.♗d5 ♗xh4 in more concrete detail clearly didn't help.

Puzzle 14



White to play – Level 7

Show/Hide Solution

Puzzle 14 – Il Faut Réfléchir

Agnieszka Milewska
Elo 1677

00:10 I have a very good bishop on a3. It prevents Black from castling.
00:30 Not sure about 1.♗xc6, as Black's bishop would assume a good position, attacking both my queen and my knight.
01:30 I am considering 1.♘e5, but I think after 1...♗xe5 2.dxe5 ♘xe5 I am losing a pawn.
02:30 I cannot castle, as 1...a6 is coming, forcing me to capture the knight with my bishop.
03:20 I am considering the candidate moves 1.♘e5 and 1.0-0.
03:32 I think I go for 1.0-0. Both my rooks are connected and ready to assume strong positions in the central files, especially on e1. And my bishop still prevents Black from castling.
1.0-0

Evaluation: White is much better. (+2.0)

Louise Head
Elo 2090

00:20 I am counting material to see what's going on. Black's king cannot castle at the moment because my bishop controls the diagonal.

00:45 I am looking into attacking the king. Playing 1.d5 and putting a rook along the e-file looks strong.
01:30 I considered 1.♘e5, but I don't think it's good: 1.♘e5 ♗xe5 (or 1...♘xe5) looks good for Black.
02:00 I am thinking of castling and ♖e1, because that is hard to play against. But it may be too slow.
02:15 I still may need to castle though, to play d5.
03:10 I have three ideas so far: 1.0-0; 1.0-0-0, with the idea of playing 2.d5 and moving a rook to the e-file; and 1.♗xc6 followed by 2.♕b4.
05:20 I reject the idea of 1.♗xc6 and ♕b4. It doesn't get me anywhere.
06:00 1.0-0-0 is my main idea now. But it may be a bit dangerous.
08:45 In this position I'd play: 1.0-0-0 ♖c8 It looks a bit risky, but I can't see how Black can take immediate advantage.
09:00 I think White has an edge after **1.0-0-0**.

Evaluation: (+0.8)

Anonymous
Elo 2305

00:30 White has a clear edge. A lead in development, and Black can't castle. Black's main threat is 1...a6.
So we should look for something quick, otherwise Black will play 1...a6 and probably equalize. We need something specific.
01:30 1.d5 comes to mind. But it allows 1...♗xc3†. Although I have a feeling that may not necessarily be fatal.
02:25 1.d5 ♗xc3† 2.♔e2 looks quite dodgy though.
02:30 The general idea of d5 is to castle and go ♖e1†. However, if I castle first: 1.0-0 a6, and the whole d5 idea fails. That's why I am considering d5 as my first move. But 1.d5 doesn't work.
04:00 I'll put d5 on hold for now and consider 1.♘d2, with the idea of ♘c4 and ♘d6†.
06:30 Oh! 1.♘d2 a6 2.♘c4 axb5 3.♘d6† ♔f8 Here I am looking at 4.♘c8† (king moves) 5.♕xa8 – but Black ends up having two pieces for the rook. I don't like it. Doesn't look great.
08:00 The line is tempting, but after any discovered check he plays ...♔g8 and my queen is hanging. 1.♘d2 is definitely worth considering though. Let me think a bit more. Because it's a puzzle, I am trying hard to find something. So I am going to look deeper into d5 again.
12:00 1.d5 ♗xc3† 2.♔e2 Something tells me this is not good. Kind of, "Don't do this at home!"
17:30 If 1.♘d2 or 1.d5 doesn't work, I have to look for a move that prevents 1...a6. Therefore I have to move my queen somewhere. Maybe 1.♕c2 or 1.♕d1. I still keep some advantage, as Black cannot castle yet. I'll definitely not play 1.d5.
18:00 Maybe White is not better after all.
20:00 So I have to move my queen. But both 1.♕c2 and 1.♕d1 run into 1...♕a5.
21:00 1.♕b3 ♘a5 2.♕a4 ♘c6 seems like the most likely outcome, with a repetition.

23:00 If I had time to castle I would be better. I think a repetition of moves is a likely outcome.
26:00 After 1.♕b3 ♘a5, I can't really take on d7 as his knight will end up on c4 and maybe I have to fight for a draw. If I were playing someone with a significantly lower rating I might try something more riskier, but in this case I am going for a draw with 1.♕b3 ♘a5 2.♕a4 ♘c6.

1.♕b3

Evaluation: 0.0

Keith Arkell
Elo 2429

00:30 I've had similar positions with Black, as I play this line of the Caro-Kann against the Panov Attack.
01:00 In fact, I gained my second GM norm in 1992 by winning a game with a similar variation against Lanka. However, I have never played the White side.
01:40 Black is threatening 1...a6 in this position, getting a decent game. So White has to act fast.
02:10 1.♘e5 is fine for Black.
02:45 1.d5 ♗xc3† 2.King moves. No. I don't think this is practical.
03:25 White can't really play 1.0-0 as 1...a6 releases all the pressure.
03:50 So I think a queen move is in order. But 1.♕b3 ♘a5 repeats moves.
04:20 So if it is a queen move, it has to be 1.♕c2 or 1.♕d1.
04:50 If 1.0-0 a6 2.♗xc6 ♗xc6 3.♕d1 ♗f8 (or 3...♗xf3) and Black has no problem at all.
05:30 1.d5!?? Although scary, doesn't seem right.
06:10 No. I can't make 1.d5 work.
07:30 If I bring my queen back, and my bishop back, Black can play ...♗f8 or ...♖c8 and I have nothing. 1.♕c2 a6 2.♗e2 ♖c8, and I have just lost two tempi.
07:50 I don't like this position. For either colour!
09:10 1.0-0 a6 2.♗xc6 ♗xc6 3.♕d1; or even maybe 3.♕b3. White might be slightly better, but I am not fully confident. I'm stuck here. I would probably play 1.♕d1 or 1.♕c2.
10:15 Oh no! 1.♕d1? ♕a5!
10:50 I go for **1.0-0**.

Evaluation: +0.3

Michael Adams
Elo 2701

01:00 Castles is an obvious developing move. I am also considering 1.d5. But 1...a6 is a problem at the moment, as I have to lose ground with the bishop.

01:50 Not sure about other candidate moves. 1.0-0 a6 doesn't look great for White.
02:00 1.♕b3 would be a normal move, to meet 1...a6 with 2.♗d3 or 2.♗e2.
05:30 1.d5 ♗xc3† 2.♔e2 exd5 3.♖he1, maybe. But it is hard to believe it works. E.g. 3...♕a5 is strong.
08:00 Maybe 1.♘d2 is a possible move. 1...a6 2.♘e4 No, it doesn't work.
09:00 I think 1.♕b3 is the best move. The position is about equal, maybe slightly better for Black as I like his structure a bit more.

1.♕b3

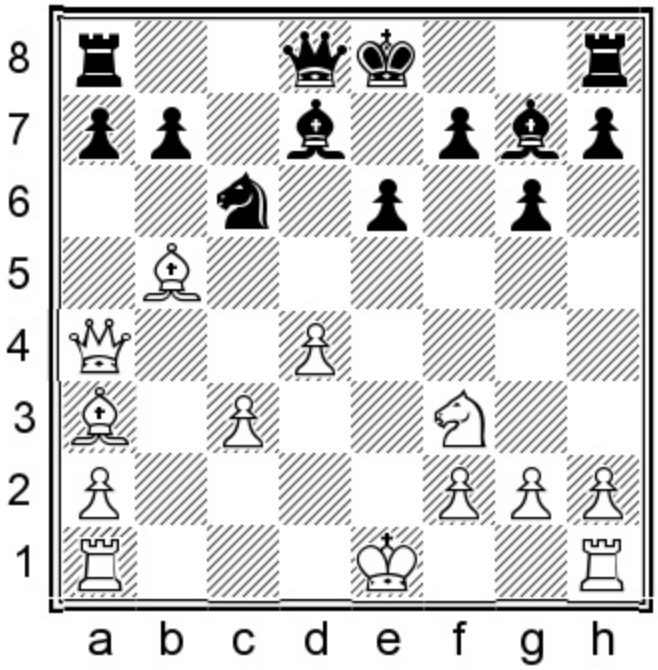
Evaluation: (–0.1)

Deeper Analysis by Michael Adams

Magnus Carlsen – Pere Garriga Cazorla

Internet ('Banter Blitz') 2019

1.c4 c5 2.♘f3 ♘c6 3.♘c3 ♘f6 4.e3 g6 5.d4 cxd4 6.exd4 d5 7.cxd5 ♘xd5 8.♕b3 ♘xc3 9.♗c4 e6 10.bxc3 ♗g7 11.♗a3 ♘a5 12.♗b5† ♗d7 13.♕a4 ♘c6



It is important to understand Black's intentions on the next move, and how to draw the sting from the main idea to play ...a6. This can't be allowed, as it will force White to take on c6, giving Black a very comfortable position.

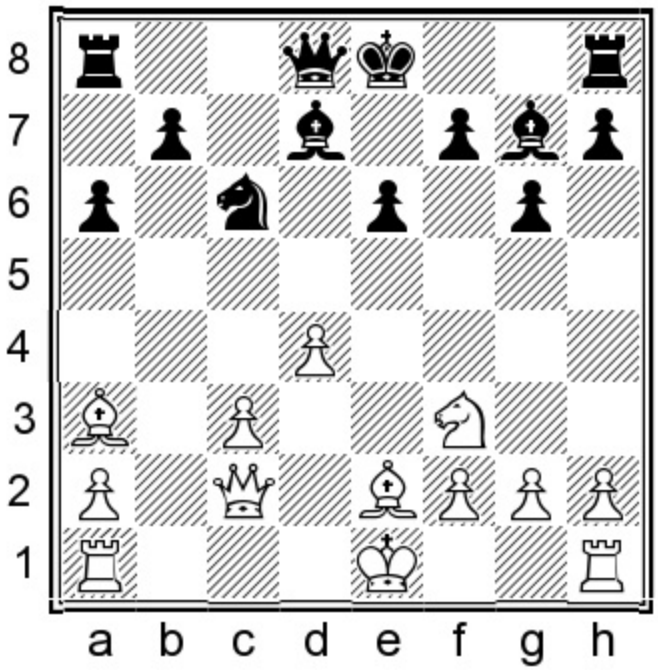
14.♕b3!

After weighing up the options, White has to take time out to find a clever piece of prophylaxis. It says much about the World Champion's impeccable positional understanding that he still sensed the moment for this, despite the light-hearted, fast-paced format.

14.0-0-0? a6 doesn't allow White time to take aggressive measures.

14.♘d2? doesn't work, as 14...a6 15.♘e4 axb5 16.♘d6† ♔f8 leaves White without a decent discovered check. 17.♘c8† ♔g8 18.♕xa8 ♕xc8 Black is winning.
14.♕d1?! can be well met by 14...♕a5 or 14...♘e7.

14.♕c2 has the drawback of leaving both bishops loose, allowing the following tactical motif: 14...a6! (14...♘e7!? is also decent; but not 14...♕a5?! 15.♕b2 when White's queen has settled on its best square) 15.♗e2



15...♘xd4! 16.♘xd4 ♗xd4 17.cxd4? (17.♖d1 is better, although 17...♗f6 18.0-0 ♗e7 still favours Black) 17...♕a5† Black emerges with a clear extra pawn.

The obvious developing option 14.0-0 is not dangerous in view of: 14...a6! 15.♗xc6 (15.♗e2? ♘xd4–+) 15...♗xc6 16.♕b3 (or 16.♕d1 ♕a5 with a pleasant position for Black) 16...♗xf3 17.gxf3 ♕g5† 18.♔h1 ♕b5 Black is comfortably equal.

14.d5?!

This speculative attacking move is interesting, but too optimistic.

14...♗xc3†

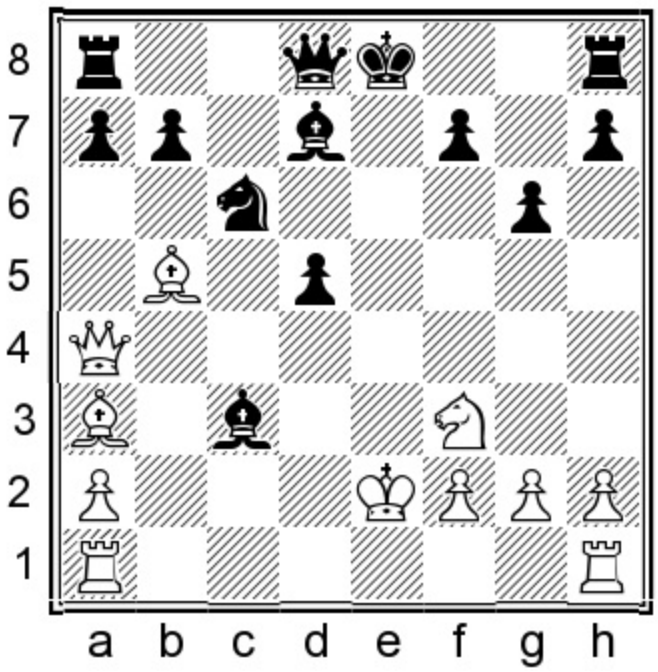
14...exd5?? 15.0-0+– is White's dream scenario.

15.♔e2

White's problem is that the misplaced king gets in the way and slows down the attack.

15...exd5!

15...♗xa1? 16.dxc6 bxc6 17.♗xc6 puts Black in big trouble.



16.♖he1

16.♖ac1 ♕a5 repels the attack.

16...f6!

Allowing the king to flee to the kingside is best.

16...♕f6 17.♔f1† ♔d8 and 16...♕a5 17.♔f1† ♔d8 are also to Black's advantage.

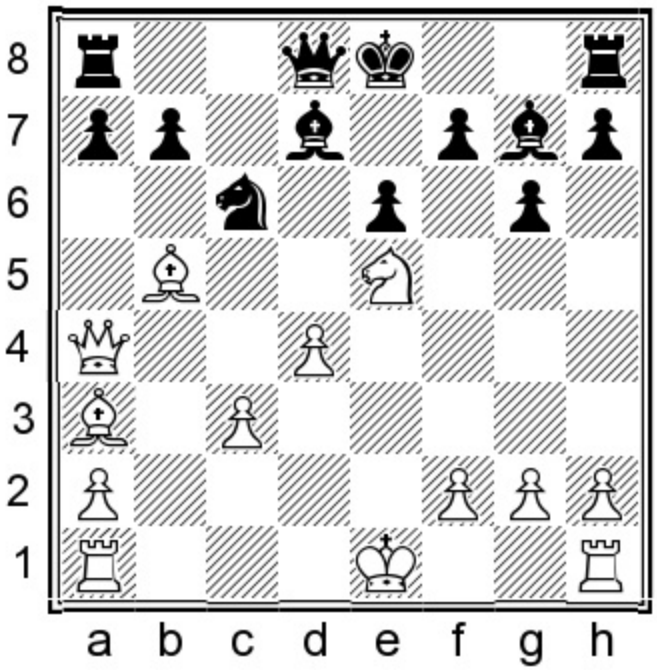
17.♔f1† ♔f7–+

The assault is running out of steam.

A final option is:

14.♘e5!?

This direct attacking try is quite a dangerous concept. As more lines open up, the fact that the a3-bishop cuts off the king from castling becomes a bigger factor. Black shouldn't be greedy, but should instead look to trade pieces and take care of the king.

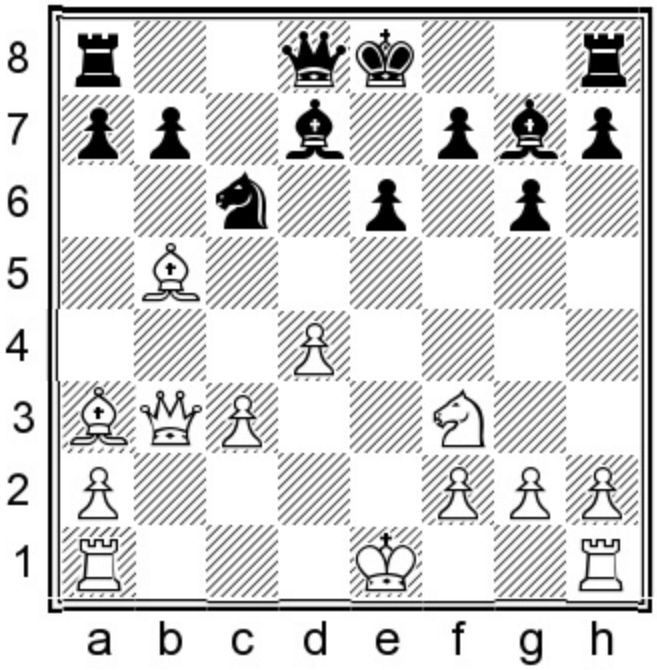


14...♘xe5

14...♗xe5!? 15.dxe5 ♕a5 is also possible; Black has to reduce material to survive.

15.dxe5 a6 16.♗xd7† ♕xd7 17.♕xd7† ♔xd7 18.0-0-0† ♔c6

With a balanced endgame.



14...♘a5

It's hard to resist hitting White's queen, but the knight is misplaced here.

Instead, a step in the right direction would be:

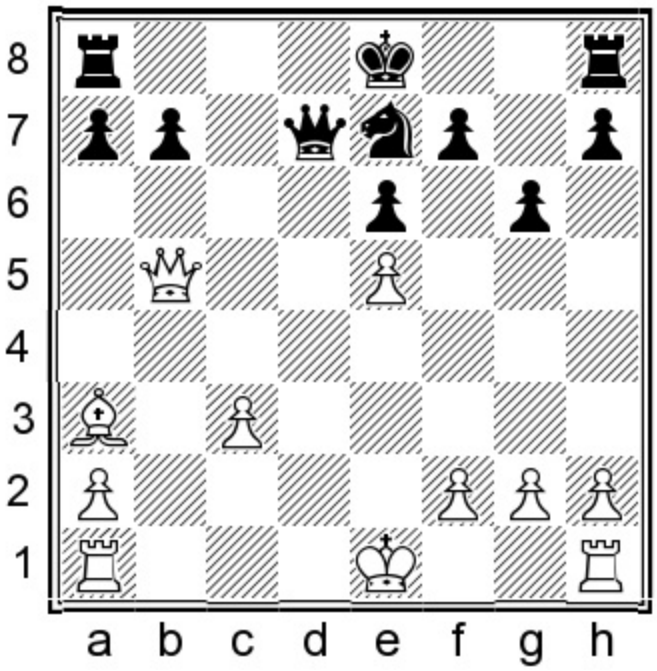
14...♘e7!

This has the advantage of preparing castling.

15.♘e5

15.♖b1 b6; 15.0-0 0-0

15...♗xe5 16.dxe5 ♗xb5 17.♕xb5† ♕d7



The exchanges have dampened White's initiative.

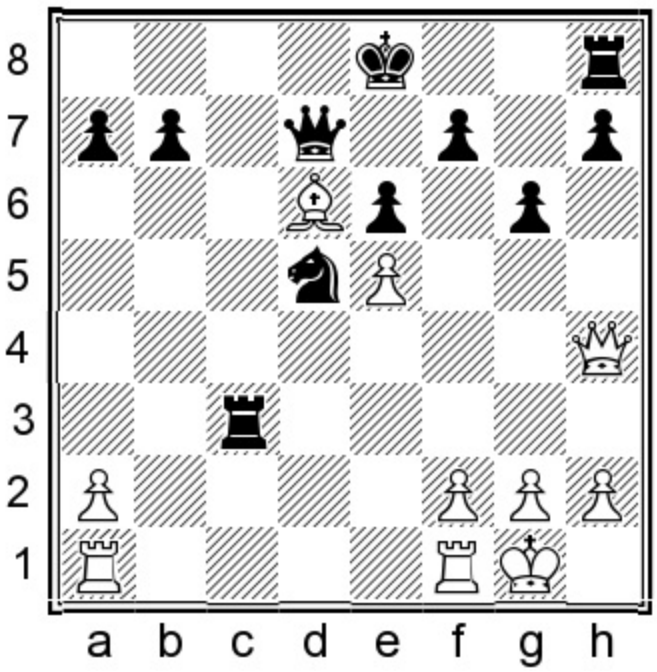
18.♕b4

18.♕b3 0-0 19.♖d1 ♕c7 20.♗d6 ♕d7 is equal.

18...♖c8

18...0-0-0!? 19.0-0 ♘f5 is an interesting alternative.

19.0-0 ♘d5 20.♕h4 ♖xc3 21.♗d6



21...f5!

An important move, giving the king a bit of breathing room.

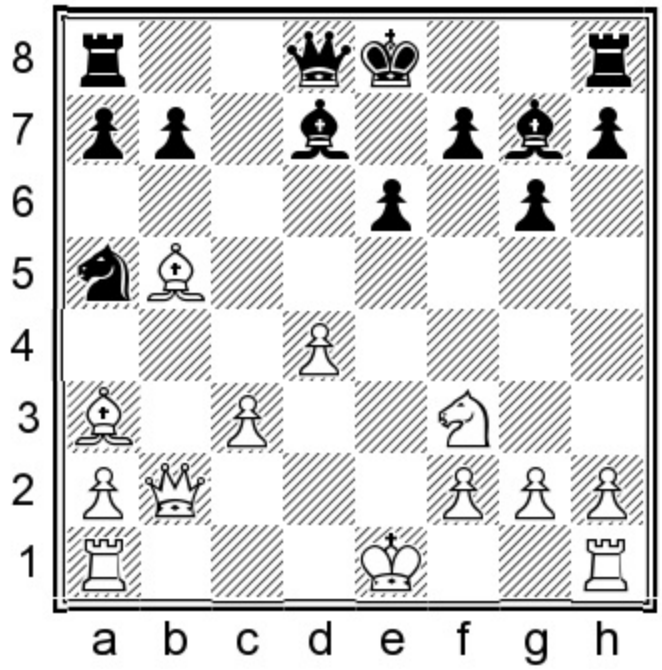
22.♖ad1!

Aiming for a timely exchange sacrifice on d5 is best, with a complex and dynamically balanced position.

22.♖ac1 ♖xc1 23.♖xc1 h5 followed by ...♔f7 is good for Black. The bishop is powerful on d6, but the octopus knight on d5, covering the key entry squares on f6 and c7, should not be underestimated.

15.♕b2!

15.♕b4 is less impressive. The most natural reply is 15...b6, securing the knight and preparing ...♗f8, although White can cause some trouble with 16.d5!. However, Black might also take the opportunity to rethink the previous move and play 15...♘c6, intending the more accurate ...♘e7 next.



15...a6?!

Another drawback to having the knight on a5 is shown after: 15...♗f8?! 16.♗xf8 ♔xf8? (16...♖xf8 is the lesser evil, but is clearly undesirable) 17.♗xd7 ♕xd7 18.♕b4† Winning a piece.

The radical 15...♕b6 was best. Due to his better structure, Black can happily make minor concessions in order to trade some pieces and dampen White's initiative. 16.♗xd7† (16.♕b4 0-0-0 looks fine for Black) 16...♔xd7 17.♕e2 (17.♕c1 ♕b5 18.♖b1 ♕d3 is nothing special for White) 17...♕a6 18.♕xa6 bxa6 19.♔e2 White can be considered the slight favourite due to the better structure, but Black is not without chances and a long battle lies ahead.

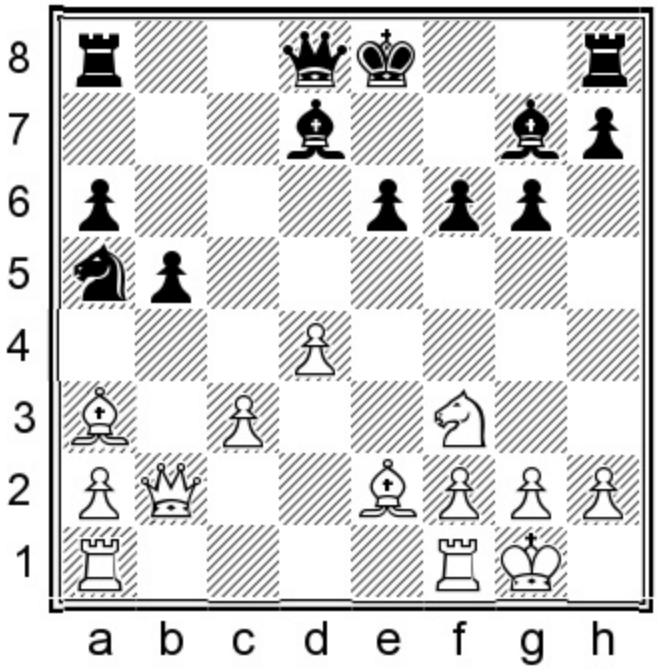
16.♗e2 b5

16...♗f8 17.0-0 ♗xa3 18.♕xa3 f6 19.d5! is strong.

17.0-0

Here Carlsen commented, “Black’s difficulty in castling is an important factor”. Not the best banter, but it’s hard to argue with his point!

17...f6



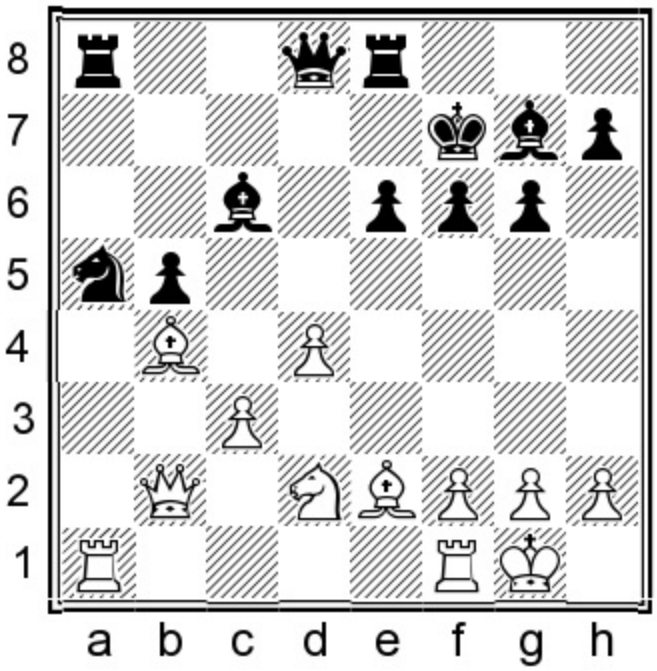
18.♘d2

18.d5! was a more energetic way to exploit White’s lead in development. 18...exd5 (18...e5 19.♘d2 ♔f7 20.♘e4 gives White a big advantage) 19.♖fe1 ♔f7 20.♘d4 All of White’s pieces are well placed. The plan is ♗f3 next, with a strong initiative.

18...♗c6 19.♗b4 ♔f7 20.a4 ♖e8

20...bxa4 also fails to solve Black’s problems after 21.♗f3 ♗xf3 22.♘xf3 ♘c4 23.♕e2 ♕d5 24.♖xa4 when the knight on c4 doesn’t feel secure.

21.axb5 axb5



22.♖fe1

Magnus kept on applying pressure, and eventually won the game.

22.♖a3! was the best continuation, intending to double on the a-file.

Scoring for Puzzle 14

Best move	Score	Evaluation
1.♕b3	**10**	**+0.1**
1.♘e5	**9**	**+0.1**
1.0–0	1	–0.3
1.♕d1	1	–0.4
1.♖ad1	1	–0.9
1.d5	1	–1.1
1.0–0–0	1	–1.6
1.Others	1	

Bonus points for correct evaluation

Between –0.10 and –0.29	2 points
Between –0.09 and +0.29	**3 points**
Between +0.30 and +0.59	2 points
Any other evaluation gets	0 points

Puzzle Commentary by Phil

We very often play mechanical moves, especially in the opening. In this position many players would probably take the natural option of kingside castling, putting the king into safety and connecting the rooks. When I saw this position with Carlsen playing White in one of his fantastic Banter Blitz sessions, I noticed how Magnus paused for seventeen seconds to think after 13...♘c6. Instead of playing an automatic, intuitive move like castling, he acknowledges Black's threat of ...a6, and takes his time to reflect on the best possible move – which of course he finds. 14.♕b3! is not a natural developing move. It can only be found by logic.

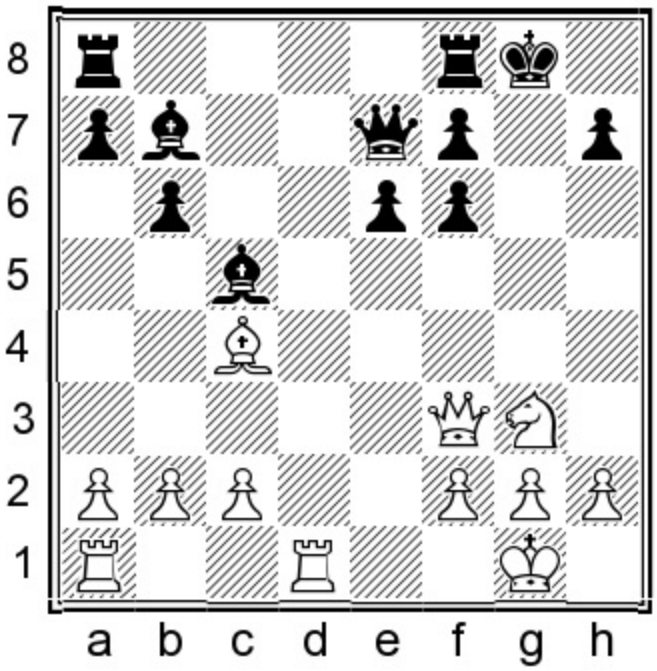
I remember many years ago a French Master giving me some advice as how to handle unfamiliar moves in the opening: *"Il faut réfléchir"*, he said. "You have to think!"

Adams Insight

This position is in some respects similar to Puzzle 3. White should be willing to make a small concession in terms of time, by retreating the queen to deal with the opponent's plan to play ...a6, before continuing his own development. This idea takes top priority here, as the serious threat of ...a6 needs to be dealt with, and other more ambitious ideas should be postponed in order to do this. If Black is able to force the exchange of knight for bishop, gaining time by hitting the white queen at the end, all his problems are solved. This has to be addressed, and dropping the queen back to b3 is the best way to counter Black's plan.

Weaker players seemed to overestimate White's position. The bishop on a3 is certainly handy in preventing castling, but this factor by itself isn't enough to claim a huge edge, due to Black's solid structure. White should also be aware that Black can facilitate castling with ...♘e7 at some moment if necessary.

Puzzle 15



White to play – Level 8

Show/Hide Solution

Puzzle 15 – L'Amateur Devient Maître

Sebastian Reyes
Elo 2272

00:30 Black has doubled pawns, but in return he has the bishop pair pointing at the enemy king.
01:00 I suppose White has to move his queen. 1.♘e4 just pins your own knight, and ...f5 is coming.
01:20 1.♘e4 f5 2.♕g3† ♔h8 and 3...♖g8 to follow.

04:00 What about 1.♘e4 f5 2.♖d7? Then 2...♕xd7 3.♘f6† ♔g7 4.♘xd7 ♗xf3 5.gxf3 ♖fd8 Black is better – exchange up.
05:00 So 1.♘e4 doesn't work. Let's look at some alternatives. 1.♕g4† ♔h8 and after 2...♖g8 Black is getting many tempos.
05:00 1.♕f4 with the idea of 2.♘h5. And if 1...f5 2.♕h6 seems to add a lot of pressure.
06:00 I have narrowed down to two candidate moves: 1.♕e2 or 1.♕f4.
08:40 My favourite line so far is 1.♕f4, and Black will find it difficult to defend against ♘h5.
10:00 1.♕f4 f5 2.♕h6 f6
11:00 I play **1.♕f4**.

Evaluation: White seems to have a clear advantage. (+0.90)

Anonymous
Elo 2305

00:30 Interesting position. There seems to be some tactics here. The first move that comes to mind is 1.♕g4†. Let's see.
01:30 1.♕g4† ♔h8 And now after 2.♘h5 ♖g8, nothing good is happening.
01:45 I have the feeling there must be something.
03:30 1.♕h5 could be a good move.
04:45 1.♕h5 ♔h8 2.♗d3 f5 3.♘xf5 ♕f6!
05:30 I am starting to like White's position less and less.
06:00 Black's plan is quite clear: ...♔h8, ...♖g8 and ...f5.
08:00 1.♕c3 ♔h8 2.♘h5 ♖g8, threatening on g2. Black is better.
09:00 1.♕f4 might be a good move, continuing to put pressure on f6.
11:00 1.♕f4 ♔h8 2.♖d7 Now I only have a perpetual. It seems this line is only a draw, but I feel there is something.
11:30 1.♕f4 ♔h8 2.♖d7! ♕xd7 3.♕xf6† ♔g8 4.♘h5 ♕d4!
12:00 Maybe if I play b4 before that, I think I might have something.
13:00 1.♕f4 ♔h8 2.b4! ♗xb4 3.♖d7 And now I think I am winning.
14:00 If 3...♕xd7 4.♕xf6† ♔g8 5.♘h5, and it looks like it is game over.
15:00 So **1.♕f4**.
17:00 And Black cannot play ...♔h8. It's difficult for me to evaluate all the possibilities for Black, and honestly, in a real game, I would stop calculating here and play 1.♕f4.

Evaluation: +1.0

Julio Granda
Elo 2630

00:20 I am looking for winning lines here. 1.♕g4† ♔h8 2.♕h4 with the idea of ♖d7. But after 2...♖g8 I cannot move my knight because of the threat on g2.
02:15 I am looking more carefully now at another move: 1.♕f4
02:30 I want to maintain control of the f6-square and prevent Black from winning a tempo playing his rook to g8.
04:45 I also have a convenient b4 to decoy the bishop if I need to.
05:00 There is a very nice line: 1.♕f4 ♔h8 2.b4! ♗xb4 3.♖d7 ♕xd7 4.♕xf6† ♔g8 5.♘h5 ♗c3 (only move) 6.♕xc3 f6 (only move) 7.♗xe6† ♕xe6 8.♕g3† ♔f7 (only move) 9.♕g7† ♔e8 (only move) 10.♕xb7 Winning.
Of course, Black has plenty of resources. First of all we have to look for alternatives to 1...♔h8.
07:00 1.♕f4 ♖fd8? This fails to 2.♘h5, and White wins.
08:00 We also have to consider ...♗xf2† in some lines. But they don't seem to work.
08:30 1.♕f4 looks like the winning move.
10:00 1.♕f4 ♔h8 2.b4 e5 3.♕h6 ♗xf2† 4.♔xf2 wins for White.
11:00 I am trying to find a desperate saving line for Black. After 1.♕f4 ♔h8 2.b4 they are lost.
15:00 Maybe 1.♕f4 f5 2.♘h5 ♔h8, but even here I have the crude 3.♕e5† f6 4.♕xe6, winning at least a pawn.
16:00 1.♕f4 f5! is still the best defence. It prevents the immediate kill. 2.b4 ♗xb4 3.♘h5 ♔h8 seems to hold.
20:00 1.♕f4 f5 2.♕h6 ♗xf2†! could give Black some chances.
In any case, 1.♕f4 is the best move. And Black's best reply is 1...f5. White will at least end up winning a pawn and having a better position.

1.♕f4

Evaluation: +1.30

Michael Adams
Elo 2701

00:35 White's queen is attacked. It has the following squares: 1.♕g4†, 1.♕h5, 1.♕f4.
01:10 1.♕f4 is strong. It threatens 2.♖d7 followed by ♘h5.
01:45 1.♕h5 also looks quite logical. 1.♕h5 ♔h8 2.♗d3 f5 3.♘xf5 exf5 4.♗xf5 f6 5.♖d7 is probably winning.
02:00 1.♕g4† I feel is not as good. Black has 1...♔h8 and ...♖g8, and if the knight moves, g2 is hanging.

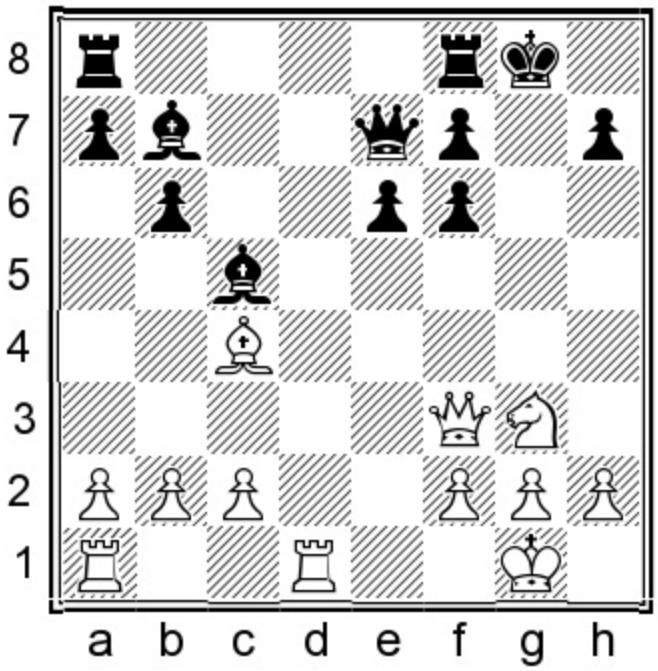
05:20 1.♕f4 ♔h8 2.♖d7 doesn't seem to work.
08:30 1.♕h5 f5 2.♕h6 ♔h8 3.b4! looks fairly good for White.
09:40 1.♕h5 f5 2.b4 ♗xb4 3.♖d7 ♕xd7 4.♕g5† ♔h8 5.♕f6† ♔g8 6.♘h5 ♗c3 7.♕xc3 f6 and now 8.♘xf6† wins back material and White is doing well.
10:45 I don't like 1.♕h5 ♖fd8 2.♕h6 ♗xf2†!. But instead there is 1.♕f4 ♔h8 2.b4! with similar ideas.
12:00 1.♕f4 ♔h8 2.b4! ♗xb4 3.♖d7 ♕xd7 4.♕xf6† ♔g8 5.♘h5 ♗c3 6.♕xc3 f6 7.♗xe6†!
12:20 I think 1.♕f4 is more precise.
12:30 1.♕f4 is the best move.

Evaluation: +0.7

Deeper Analysis by Michael Adams

Max Euwe – Amateur

Chess Master vs Amateur



Two important factors here are: precise calculation while being aware of the whole board; and being alert to the fact that tactical resources can also aid the defender. It's not that easy to exploit Black's shattered kingside, as the bishops can prove potent if White doesn't strike fast and accurately.

1.♕f4!

It is crucial to keep White's queen on a dark square where it can access h6 and f6, and importantly leave h5 free for the knight. It's also useful that the text move allows the queen to defend

both the pawn on f2 and the bishop on c4, removing some crafty tactical resources from the Black side.

1.♕g4†? is the worst of the main candidates; chasing the king obliges Black to make the moves he wants to make anyway. 1...♔h8 2.♕h4 ♖g8 With White's help, Black's king is tucked away in the corner and the rook adds support. 3.♗d3 f5 A dream scenario for Black: the king has moved away from trouble, and the rook is useful in both attack and defence.

1.♕h5

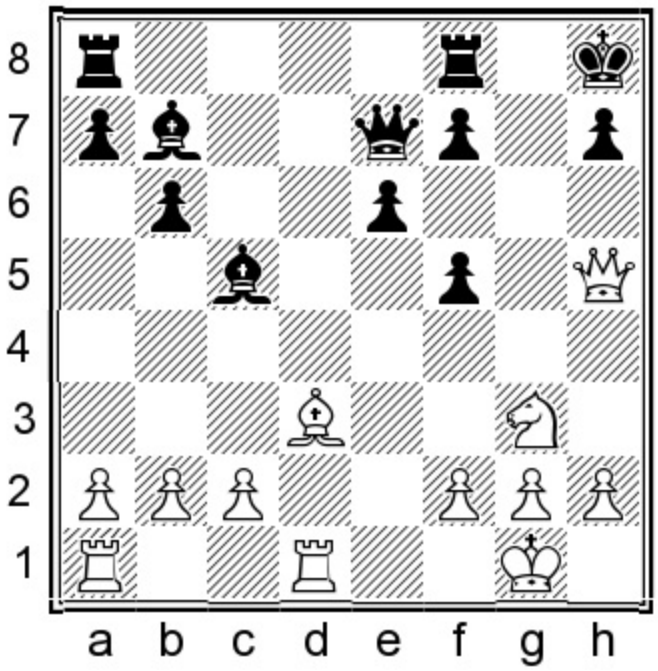
This looks tempting, but is less precise than the main line.

1...♔h8!?

White's last move was based on tactics directed against this reply – but it can be played anyway, if Black is feeling provocative.

The developing 1...♖fd8 also makes good sense. 2.♕h6 (2.♗d3 f5 favours Black) The tactical justification is 2...♗xf2†! 3.♔xf2 ♕c5† 4.♔e1 ♕xc4 5.♕xf6 ♖xd1† 6.♖xd1 ♕xc2 7.♖d7 ♕c1† 8.♔f2 ♕c5† with perpetual check.

2.♗d3 f5



3.♘xf5!

It may look as if Black has blundered, but there is more than one way to keep the game unclear.

3...exf5

3...♕f6!? 4.♕h4 ♕xh4 5.♘xh4 ♗e7 is only a tiny bit better for White.

4.♗xf5 ♗xf2†!

4...f6? 5.♖d7+– offers no resistance.

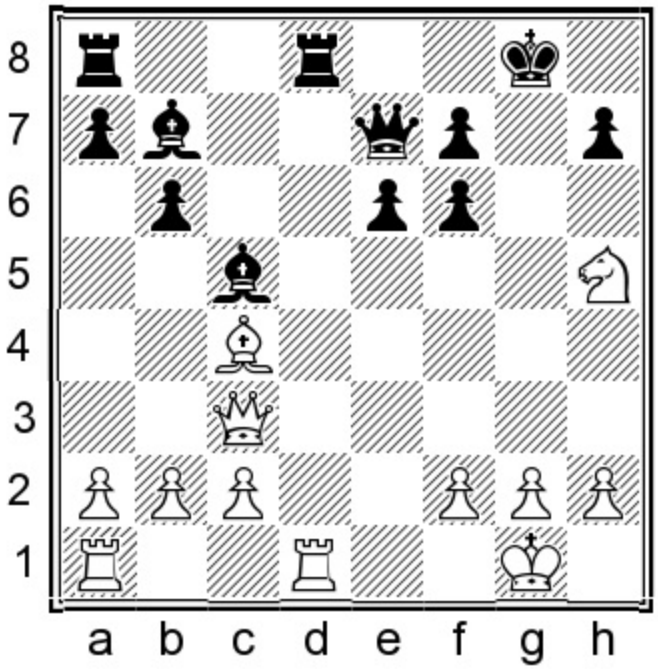
5.♔xf2 ♕c5† 6.♔f1 ♗a6† 7.♖d3 ♔g7

Black's position looks frightening, but White has no more than a draw.

1.♘e4 should be met by 1...♗xe4! 2.♕xe4 f5 3.♕e2 ♖ad8 with comfortable equality.

Instead, 1...f5? loses to a forcing sequence: 2.♕g3† ♔h8 3.♘xc5 ♕xc5 (3...bxc5 4.♕e5† ♔g8 5.♖d3+–) 4.♕c3† ♔g8 5.♖d7 ♗e4 (5...♗c6 6.b4+–) 6.b4 ♕c6 7.♕g3† ♔h8 8.♖c7 ♕e8 9.♕c3† ♔g8 10.♖e1 White wins.

1.♕c3 ♖fd8 2.♘h5 is met by:



2...♗xf2†! Again a loose minor piece causes problems. 3.♔xf2 (3.♔h1 e5 is good for Black) 3...♕c5† 4.♔e1 ♕xh5 5.♕xf6 With an unclear position.

1...f5

Black has few options, as 1...♖fd8? loses without a fight after: 2.♘h5! ♔h8 (or 2...f5 3.♕g3† and mate) 3.♘xf6+–

The other key line continues:

1...♔h8 2.b4!

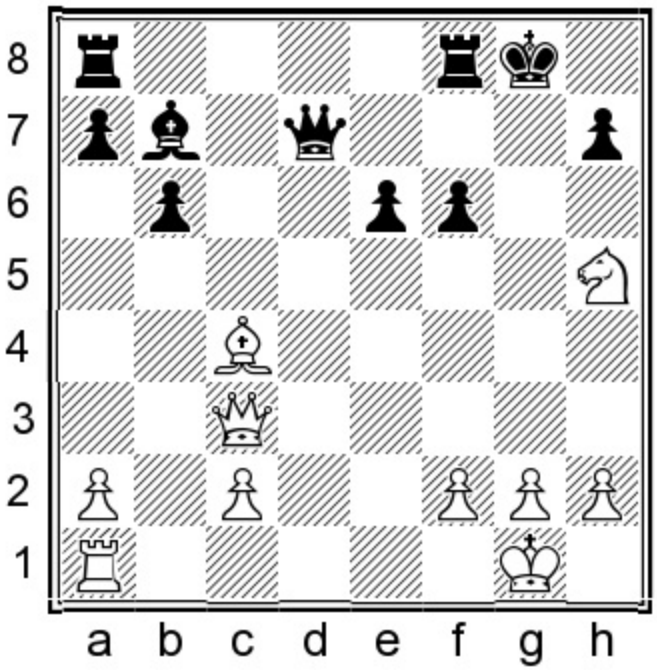
The bishop is actually an important defender, so White must lure it to a more marginal square before starting the main assault.

2.♖d7 ♕xd7 3.♕xf6† ♔g8 leaves only a draw with 4.♕g5†, since 4.♘h5? ♕d4 wins for Black.

2...♗xb4 3.♖d7! ♕xd7 4.♕xf6† ♔g8 5.♘h5

Desperate measures are needed to prevent ♕g7 mate.

5...♗c3 6.♕xc3 f6



7.♗xe6†!

7.♘xf6† ♖xf6 8.♕xf6 also wins, but less convincingly.

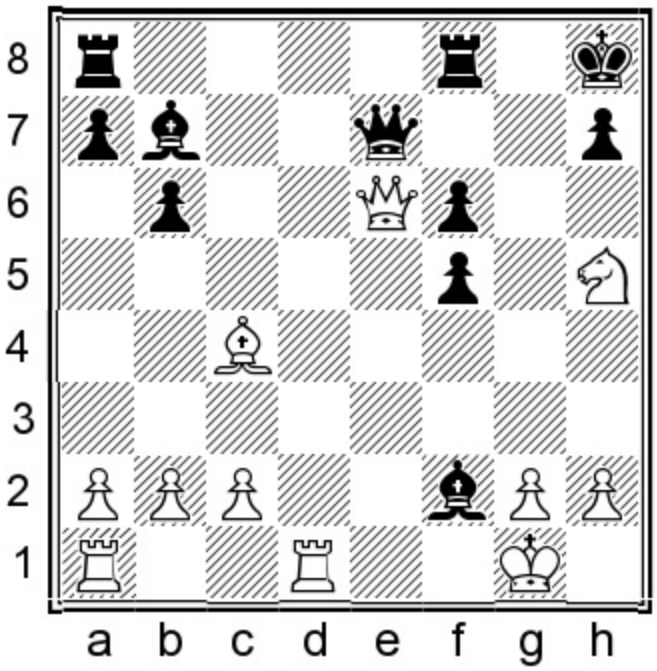
7...♕xe6 8.♕g3† ♔f7 9.♕g7† ♔e8 10.♕xb7+–

Julio calculated this line perfectly, concluding that White is winning due to the threats of ♘g7† and ♕xa8†, which can't both be met.

2.b4!

This is strongest, although White is rather spoiled for choice:

2.♘h5!? is another strong way to continue the attack: 2...♔h8 3.♕e5† (3.♖d2!? ♖g8! 4.g3 is also quite promising) 3...f6 4.♕xe6 ♗xf2†



5.♔f1! (5.♔xf2 ♕c5† 6.♕e3 ♕xc4 is rather messy) 5...♕xe6 6.♗xe6 ♗c5 White keeps a clear plus.

2.♕h6!?

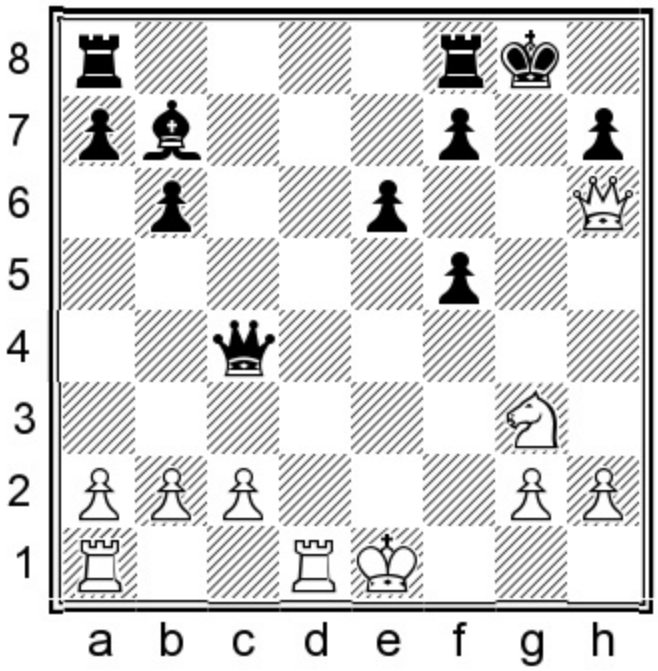
This move is also quite promising, despite looking like a blunder.

2...♗xf2†!

2...♔h8 3.b4 ♗xb4 4.♖d7 ♕xd7 5.♕f6† ♔g8 6.♘h5 is hopeless for Black.

3.♔xf2 ♕c5† 4.♔e1 ♕xc4

The computer points out that White can continue the attack in slow motion with:



5.♖d3!

5.♘h5? loses to 5...♕e4†.

However, if the knight stays put for now, Black's threats are rather limited and the black king remains in danger.

5...f4

5...♖fd8? 6.♕g5† wins immediately.

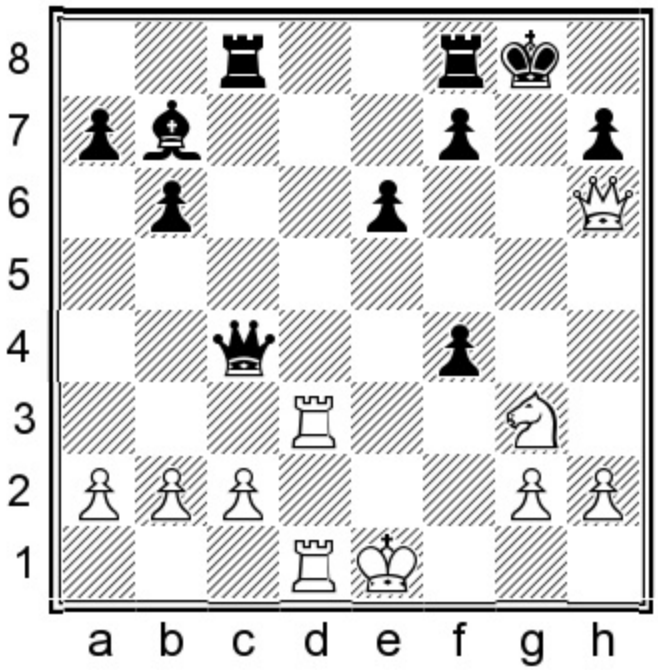
5...♖fc8 6.♘h5 ♕e4† 7.♖e3 is also decisive.

6.♖ad1

6.♘h5? ♕e4† 7.♔d2 ♕g6 defends.

6...♖ac8

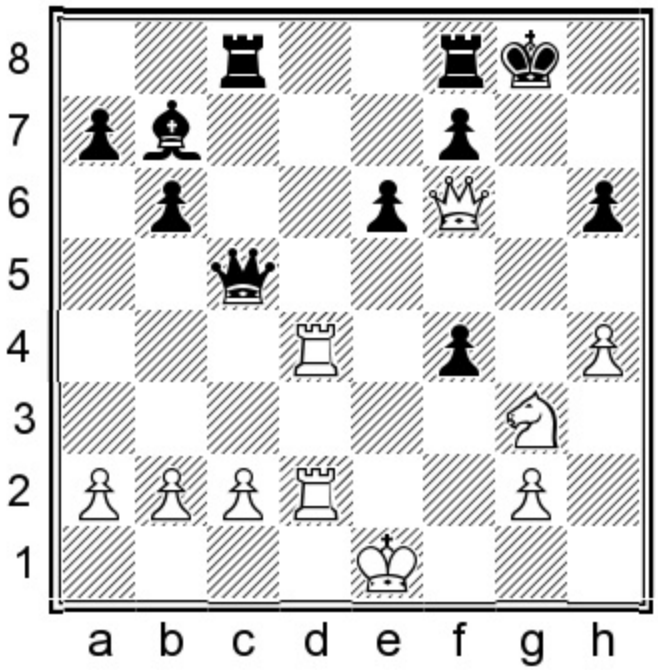
6...♕c5 7.♘h5 ♕g1† 8.♔d2 ♕xg2† 9.♔c1 ♕g6 10.♘f6† ♔h8 11.♕xf4 ♖fc8 12.♔b1! ♖c5 13.♖d8† ♔g7 14.♘e8† should also win for White.



7.♕g5† ♔h8 8.♕f6† ♔g8 9.♖1d2! ♕c5 10.♖d4! h6 11.h4!

White continues to snuff out any ideas to free Black's pieces.

11.♕xh6 ♕e5† 12.♔d1± is promising but less convincing.



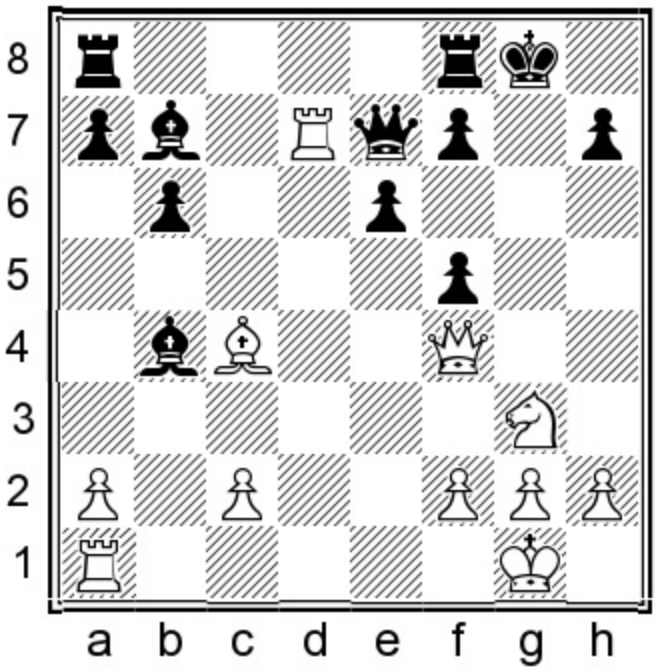
11...♔h7 12.b4!

Decoying the queen.

12...♕b5 13.a4! ♕xa4 14.♘h5

White wins.

2...♗xb4 3.♖d7



3...♕f6!

The toughest defence.

3...♕xd7 allows a familiar winning mechanism: 4.♕g5† ♔h8 5.♕f6† ♔g8 6.♘h5 ♗c3 7.♕xc3 f6 8.♗xe6†! (8.♘xf6† ♖xf6 9.♕xf6 ♖e8 is less impressive here) 8...♕xe6 9.♕g3† ♔f7 10.♕g7† ♔e8 11.♕xb7 Black can resign.

4.♖b1

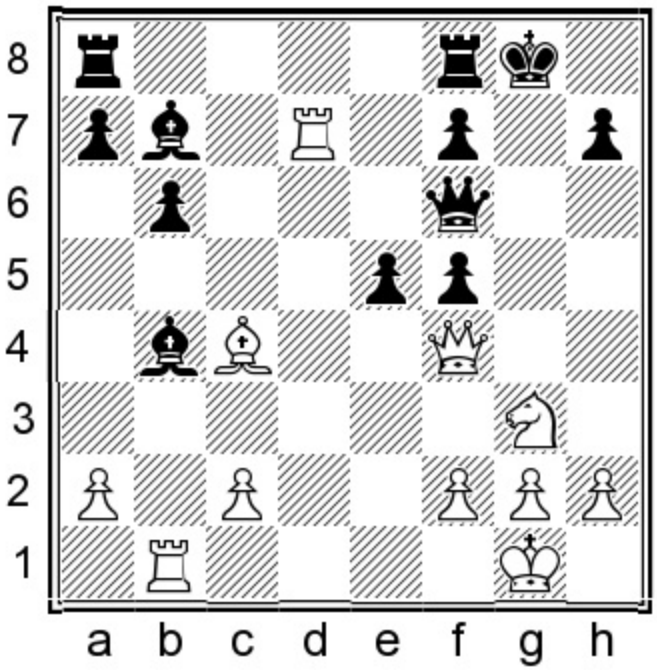
Attacking both bishops.

4...e5!

The only hope to put up resistance.

4...♗c6? 5.♖c7 e5 6.♕xf5+– gives Black a worse version of the main line below.

4...♗c8 comes unstuck after 5.♘e4! ♕g7 6.♖d3! with decisive threats.



5.♕xf5

A good alternative is: 5.♘h5!? ♕g6 (5...exf4 6.♘xf6† ♔g7 7.♖xb4+–) 6.♕g3 ♕xg3 7.hxg3 ♗c8 8.♖xb4 ♗xd7 9.♘f6† ♔g7 10.♘xd7 ♖fe8 11.♖b5 f6 12.♖d5±

5...♕xf5 6.♘xf5 ♗c8 7.♖xf7 ♖xf7 8.♘h6† ♔g7 9.♘xf7 ♗c5 10.♘xe5

The two extra pawns should tell in the end.

Scoring for Puzzle 15

Best move	Score	Evaluation
1.♕f4	**10**	**+1.2**
1.♘e4	1	+0.1
1.♕g4†	1	0
1.♕h5	1	0

Bonus points for correct evaluation

Between +0.6 and +0.89	2 points
Between +0.9 and +2.49	**3 points**
More than +2.5	2 points
Any other evaluation gets	0 points

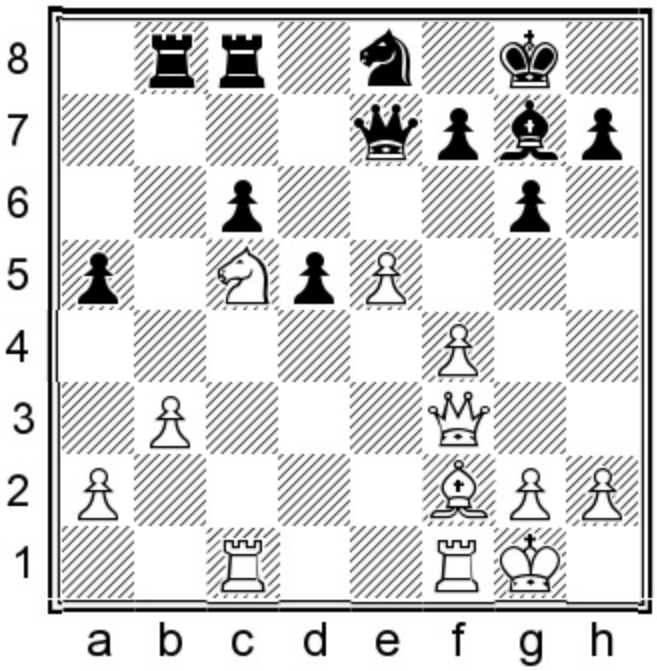
Puzzle Commentary by Phil

This is a position taken from World Champion Max Euwe's book entitled *L'amateur devient maître*, which I greatly enjoyed reading many years ago in French. In the book, Euwe plays illustrative games against his friend, and then comments on them instructively. White's best sequence is very difficult to find, even for stronger club players.

Adams Insight

Calculating doesn't only involve looking at your own attacking ideas – you also have to be aware of tactical defensive possibilities for the opponent, and that is the key here. Especially after 1.♕h5 White needs to be aware of resources with a later ...♗xf2†. This helps us to understand there is a better post for White's queen, where it still can be active on the dark squares. On f4 the queen targets key dark squares such as f6 and h6, as well as securing the f2-pawn and c4-bishop. On h5 it is less effective in terms of scope, and also prevents the knight from using that square. The idea of playing b2-b4 at some point to decoy the bishop away from defensive duties is also very important.

Puzzle 16



White to play – Level 10

Show/Hide Solution

Puzzle 16 – Progressive Deepening

Fermin Rodriguez
Elo 1544

00:40 I am looking at possible pawn breaks. I see White has two pawn islands against three. I think White is slightly better. Maybe more than slightly. I'd say +0.55.
01:30 Finding the best move here is very difficult. There are a lot of good options. An interesting move here could be 1.♘d3.
02:00 The idea of 1.♘d3 is to allow me to put my bishop on c5, which isn't doing much where it is now.
02:20 No. I reject ♘d3.
03:00 A move screaming out to be played here is 1.f5, but I don't think it is good.
03:40 This is the typical position where no matter what move you make you are still going to be better.
04:30 Black is very passive. The bishop on g7 is a piece of wood. White's knight on c5 is excellently placed.
05:00 I am looking at 1.♕g4 to support a possible f5.
05:15 But after 1.♕g4 Black plays 1...h5.
06:00 1.e6 is also playable. In fact, I've had a look at this move before. 1.e6 fxe6 2.♖fe1
08:30 Black's only hope here is to wait for White to make two consecutive weak moves.
09:00 I think the main idea is to break Black's fortress.

11:30 I could play 1.h4 with the idea of h5.
I like 1.h4. This is what I would play. White retains his advantage. It has also become quite fashionable nowadays with computers. **1.h4**

Evaluation: +0.70

Francisco Marcos
Elo 1842

00:30 I am counting material. Material is equal. It seems White is better and that we can continue pressing.
01:00 The bishop on g7 is bad. Black also has weak hanging pawns.
01:30 I have to see what freeing manoeuvres Black has. Maybe 1...f6, but in this case I could play 2.e6.
02:00 There doesn't seem to be any tactical possibilities. Black has no loose pieces. It seems what I have to do is to continue pressing. *(Thinks in silence.)*
08:00 I have two ideas: 1.♗d4, with the idea of supporting an e- and f-pawn push; and 1.g4 followed by ♗g3, placing my bishop on a better diagonal.
12:00 I am also considering moving my bishop to h4. With this in mind, I am considering 1.♕g4.
12:45 Of all ideas, this is the one I like the most.
13:00 I will play **1.♕g4**.

Evaluation: +0.90

Philip Hurtado
Elo 1924

00:15 I have good control of the c-file. A great knight on c5.
00:30 Black's bishop on g7 is locked in. White has total domination.
00:40 I have two ideas: a) play for f5, or b) play to control the e-file with a rook, and play e6.
01:00 1.h4 and h5 undermining Black's king could also be considered.
01:20 My two candidate moves so far are 1.♗d4 and 1.♖fd1.
01:45 The idea of pushing with e6 is quite appealing also. I could possibly do it even right now: 1.e6 fxe6 2.♖fe1, probably with an advantage.
02:15 In fact, if I were Black, I would try and play 1...♘c7 and 2...♘e6 to prevent that.
07:00 I am now pretty sure Black wants to play 1...♘c7. I need to find a way to make life difficult for him.
08:00 I've also just realized that the a5-pawn is weak. A continuation like 1.♗e1 ♖a8 2.♘a4 ♖a6 3.♗c5 *(this is illegal, but Phil thought the bishop was still on f2)* could be hard for Black to meet.
09:45 I tell you what. 1.h4 could be pretty strong, with the idea of 2.h5 and 3.hxg6, weakening Black's king. This would also allow me to play ♕g4 and support an eventual push of the e-pawn.

10:00 Actually, it feels 1.h4 is not the best move. 1.h4 h5 and I've made my position worse.
13:30 Okay. An extremely clever idea: 1.♕h3 ♘c7 2.♘b7! Black can't take because of ♕xc8†, and I am threatening to plant my knight on d6.
14:00 1.♕h3 supports my planned e6 advance, prevents ♘c7 and also prepares ♗h4 in some lines, if needed.
16:00 Yeah, it is either the pseudo-brilliant 1.♕h3, or 1.♖fe1.
16:15 I am going for **1.♕h3**.

Evaluation: +0.65

Renier Vazquez
Elo 2551

00:15 My first impression is that White is clearly better. The bishop on g7 is locked in, the knight on e8 is passive, and White's knight on c5 is on a very good outpost. White's pieces are harmoniously deployed.
00:45 White is clearly better. The question is what to play knowing I am better. Do I try and force f5? Do I try and force e6? Or should I just continue pressing my opponent?
01:00 My thoughts are that I should try to continue improving my pieces.
01:30 A good technique is trying to work out what my opponent wants to do. Maybe he wants to play 1...♘c7 and 2...♘e6. Looking at what your opponent wants to do usually pays good dividends.
01:45 1.♗d4 supporting a possible pawn break on f5 is an idea. But I have to see if that works. Another idea is to attack the weak pawns on the queenside.
02:00 My first impression is that I should try and aim for a pawn break with f5, and not to attack the weaknesses on a5 and c6.
(Thinks in silence.)
06:00 1.♗d4 looks too tame. Black can play 1...♖b5 and start gaining counterplay.
07:00 Another way to do it could be 1.♖ce1 ♖b5 2.f5 ♖xc5 3.f6.
07:30 But Black does not have to play 1...♖b5; he can play 1...♘c7 followed by ...♘e6.
07:45 This is the typical position where White is +1.0 but one does not know how to continue.
08:00 This is a position in which you are not going to be able to calculate everything. 1.♖ce1 ♘c7 2.f5 gxf5 3.♕xf5 ♘e6 and it is not clear to me how to follow through.
08:05 This is the hardest position you have given me so far.
10:00 Okay, I have a completely different thought: 1.♕c3. The idea is to attack the a5-pawn while defending my knight, so I can gain a tempo when I play ♖ce1.
10:15 Oh, but Black can play 1.♕c3 ♖b4 and he is attacking my f-pawn.
10:30 Oh God! This is a real brainteaser!
14:00 I am now considering 1.♕h3, with the idea of playing 2.♗h4.
14:30 This position is like an open buffet. There are so many options it is difficult to choose the best one.
15:00 I finally decided to go for 1.♕h3. It threatens ♗h4, and also prevents 1...♘c7 because of 2.♘d7

attacking the rook on b8 which cannot move along the b-file because the rook on c8 is loose.

1.♕h3

Evaluation: +1.50

Deeper Analysis by Michael Adams

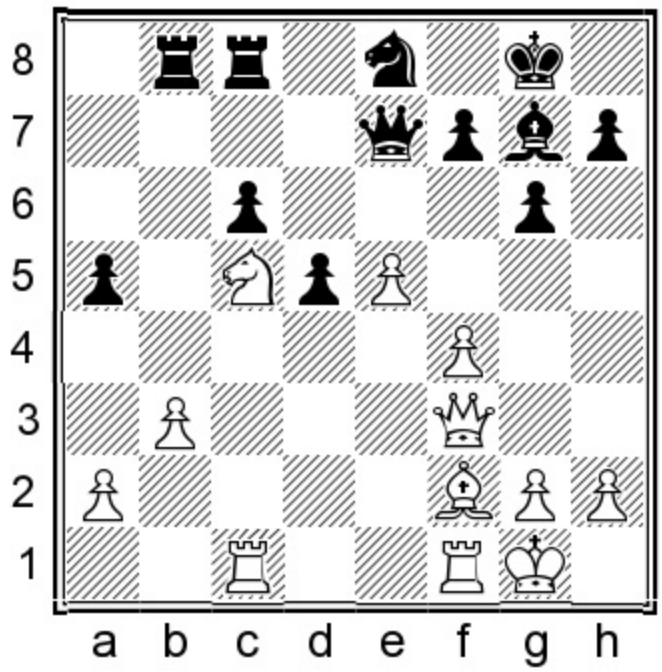
Michael Adams – Simon Williams

Canterbury 2010

1.e4 c5 2.♘f3 d6 3.♗b5† ♗d7 4.♗xd7† ♕xd7 5.c4 ♘f6 6.♘c3 g6 7.d4 cxd4 8.♘xd4 ♗g7 9.f3 0-0 10.♗e3 ♖c8 11.b3 e6 12.♖c1 d5 13.e5 ♘e8 14.cxd5 exd5 15.f4 ♘c6 16.0-0 ♘c7 17.♘xc6! bxc6 18.♘e4 ♘e8 19.♘c5 ♕e7 20.♘d3 ♕e6 21.♕f3 a5 22.♘c5 ♕e7 23.♗f2 ♖ab8

White has a handy pawn wedge on f4 and e5, plus an iron grip on the queenside, with the knight on c5, bishop on f2 and rook on c1 controlling a lot of important squares. To progress, it appears that White needs to either target the weak pawns on a5 and c6, or advance the kingside pawn majority by playing f4-f5 after appropriate preparation. I should also be aware that one of Black's most desired outcomes is to transfer the lousy knight from e8 to e6 via c7, aiming to swap the powerful horse on c5.

There is a simple way to improve my position here, making some threats and increasing options before committing to one of these ideas.



24.♕h3!

A quiet move keeping all options, but usefully activating White's queen and also introducing two

strong ideas, the awkward-to-meet ♘d7 and the useful option of ♗h4. Still, I didn't expect when playing it that my opponent would resign three moves later! However, when you have a lot of control, space and strategic advantages, unpleasant little jabs like this move are not easy to respond to, and can have a demoralizing effect on your opponent – particularly one like Simon who is in his element when attacking.

There is a long list of reasonable alternatives that score points, and I will give brief comments on many of them.

24.♕g4 has similar ideas, but if Black counters with 24...f5 as in the game White loses a tempo.

24.♖fd1 is a mistake. The rook has no target with the d5-pawn securely defended, and the rook already had a promising future on the f-file. Black can answer with 24...♘c7, improving his worst-placed piece.

24.♖ce1 makes some sense, but 24...♘c7 25.f5 gxf5 26.♕xf5 ♘e6 is not too bad for Black.

24.♖c2 is certainly logical, adding to the firepower aimed at c6. However, after 24...♘c7 25.♖fc1 ♘e6 it's not so easy to progress.

24.♘a4 has it points as Black does not have many useful moves, but 24...f6 creates some play.

The modest retreat 24.♘d3 is not bad, nailing the black knight to the back rank, as 24...♘c7? is not possible due to 25.♖xc6.

24.♘a6 does not make any progress after 24...♖a8 25.♘c5, although it does not spoil White's advantage.

24.h4 is positionally well founded, using the h-pawn to loosen up the black kingside. However, it allows Black to carry out his plan of 24...♘c7 25.h5 ♘e6, recycling the knight.

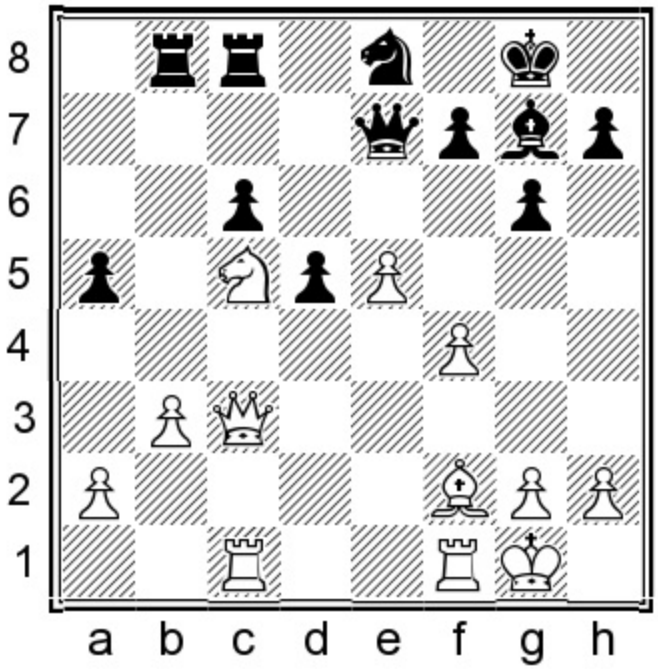
24.e6 gives up White's structural advantages: 24...fxe6 (24...f5!? 25.♕d3 ♘d6 to install the knight on e4 is also possible) 25.♖fe1 ♘c7 White's advantage has been reduced.

24.♗d4 is a mistake as it helps Black to carry out his desired plan with 24...♘c7 25.f5 gxf5 26.♕xf5 ♘e6.

24.g4 ♘c7 25.♘d3 is possible, but it is unnecessary to head for complications.

24.♗e1 Attacking the pawn should be considered. 24...♖a8 (24...♕a7 25.♗f2 ♕e7 repeats the position; 24...♘c7!? 25.♗xa5 ♘e6 is not bad – Black improves his position considerably at the cost of a pawn.) 25.♘a4 ♖ab8 Black hangs on, as 26.♗xa5? can be met by 26...♕a7†.

If White wishes to cash in by capturing a pawn, then 24.♕c3!? would be the way to do it:



Black should try 24...♘c7 (24...♖a8 25.♘a4! is the main point) although 25.♕xa5 ♘e6 26.♕d2 leaves Black without any real compensation.

24.♔h1!?

This move is sensible, provided White follows it up energetically.

24...♘c7

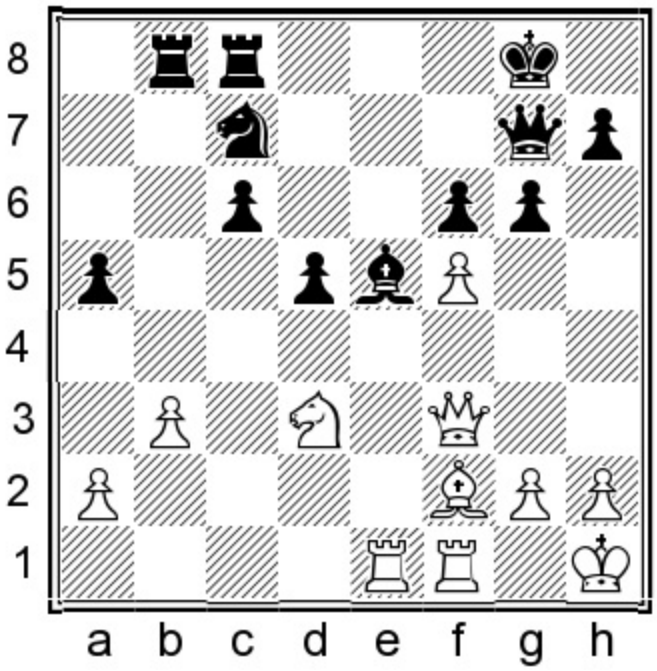
White needs to strike:

25.f5! ♗xe5

25...♕xe5 allows 26.♘d7.

25...gxf5 26.♕h5 ♘e6 27.♗h4 ♕e8 28.♖xf5 gives White a huge attack.

26.♖ce1 f6 27.♘d3 ♕g7



28.♗a7! ♖a8 29.♘xe5 fxe5

29...♖xa7 30.♘xc6 wins material.

30.f6 ♕f7 31.♖xe5! ♖e8

31...♖xa7? loses to 32.♖e7 ♕f8 33.f7† ♔g7 34.♕f6† ♔h6 35.♖f4 and Black's king is caught.

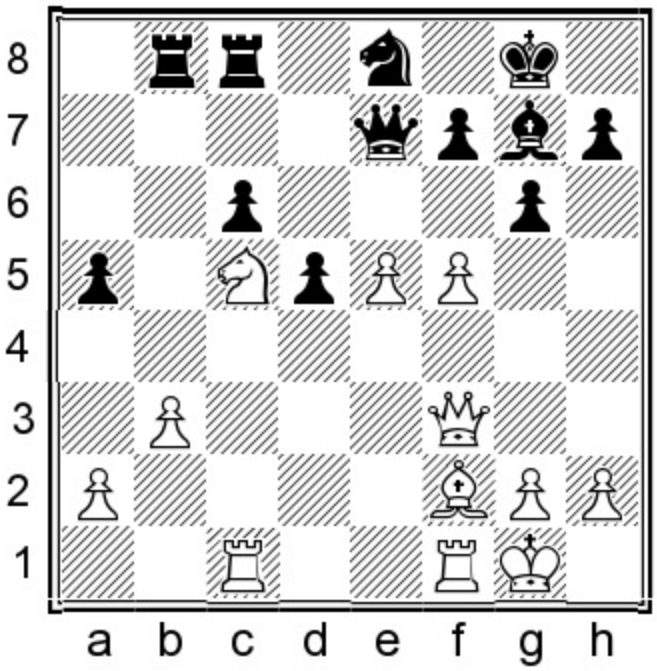
32.♖xe8† ♘xe8 33.♗c5

White has a huge positional advantage.

24.f5!?

This move goes on the offensive too early for my taste. When there are strong continuations that keep considerable control, complications should be avoided.

Objectively White is still doing well, but to justify this move requires some tactical flourishes which are difficult to see in advance.

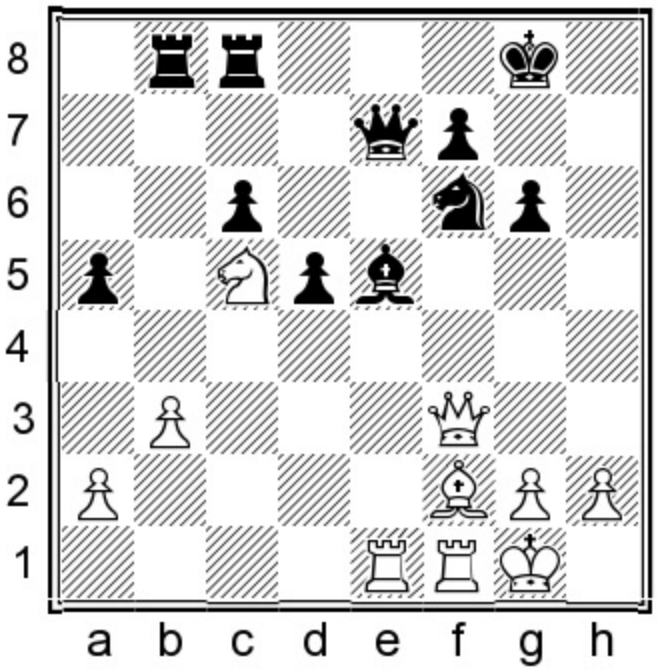


24...♗xe5

24...♕xe5 runs into the familiar 25.♘d7.

Black could also consider: 24...gxf5!? 25.♕xf5 ♕xe5 26.♕xe5 ♗xe5 27.♘d7 ♗f4 28.♖ce1 ♖b5 29.a4 ♖xb3 30.♖xe8† ♖xe8 31.♘f6† ♔g7 (31...♔f8? 32.♗c5†+–) 32.♘xe8† ♔g6± White has good winning chances, but some technical obstacles remain.

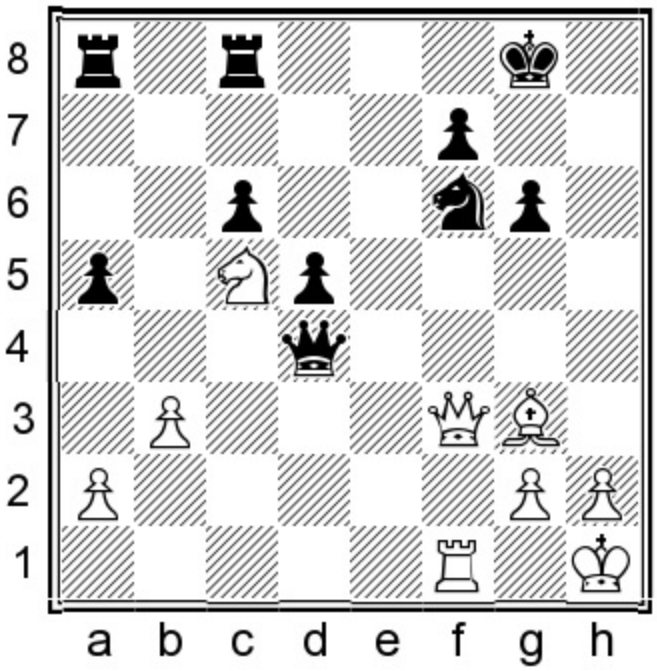
25.fxg6 hxg6 26.♖ce1 ♘f6



27.♖xe5!

27.♔h1 ♘e4 28.♘xe4 dxe4 29.♕xe4 ♖b5 30.♗d4 f5 31.♕e2 ♖e8 leaves White clearly better but without an immediate kill in sight.

27...♕xe5 28.♗g3 ♕d4† 29.♔h1 ♖a8



30.♗f2!

This would be extremely difficult to see in advance.

30.♕xf6 ♕xf6 31.♖xf6 ♖e8 is less clear.

30...♕e5

30...♕b2 allows a pretty refutation: 31.♘d3! ♕c3 32.♖c1+–

31.♗h4 g5 32.♗g3 ♕e7 33.♕xf6 ♕xf6 34.♖xf6±

White has excellent winning chances, but Black can still offer some resistance.

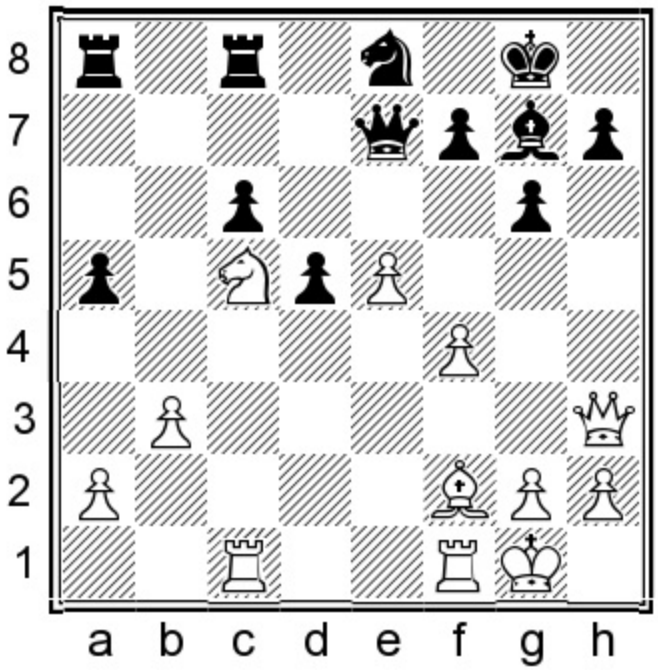
24...f5

It was becoming difficult for Black to move anything, but this leaves me with a passed e-pawn to go with my other trumps.

The main point of my last move is that 24...♘c7? loses to 25.♘d7! (rather than 25.♘b7? as proposed by Philip, when 25...♘e6 hits both the knight and the f4-pawn) 25...♖a8 26.♘b6 when White wins the exchange for no compensation.

24...♖a8!

This is the most testing move, preparing ...♘c7. With Black's pieces totally passive, it is time to prepare the f4-f5 break.



25.♔h1

25.♘a4 can be met by 25...♖ab8.

25.♖fe1!? ♘c7 26.♗h4 ♕e8 27.f5 is also very strong.

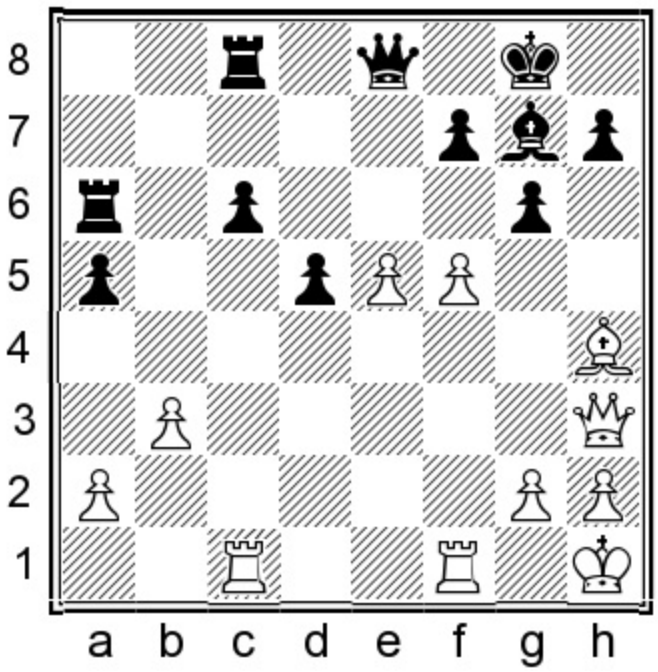
25...♘c7 26.♗h4

It's noticeable that this move, which was prepared by 24.♕h3!, amplifies White's attack considerably by preparing to insert the bishop on f6 later.

26...♕e8 27.f5 ♘a6

27...♗xe5 28.♖ce1 is a fatal pin, for instance: 28...d4 29.♘d3 f6 30.♗xf6+–

28.♘xa6 ♖xa6

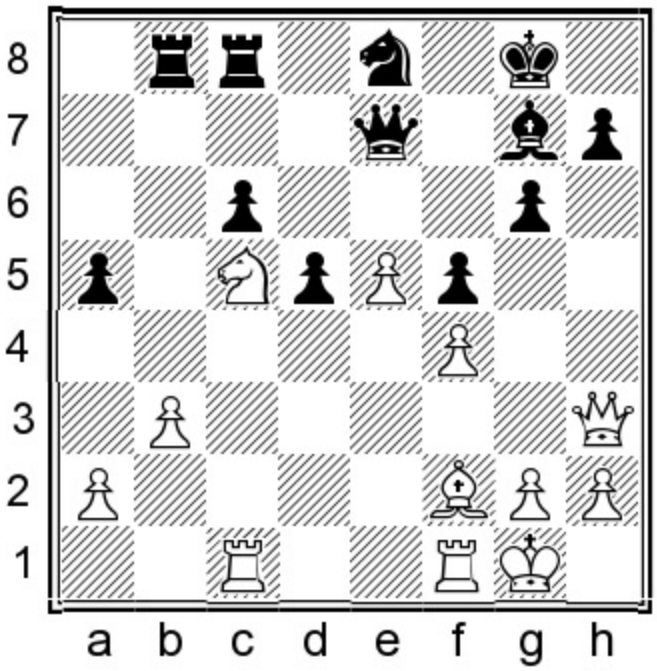


29.e6! gxf5

29...fxe6 30.f6 is killing.

30.e7 f6 31.♕xf5 ♖a7 32.♕e6† ♔h8 33.♗xf6+–

Black is crushed.



25.♕c3

The computer points out the merits of 25.g4! fxg4 (25...♕f7 26.e6 ♕f6 27.♘d7 ♕xe6 28.♘xb8 fxg4 29.♕g3 ♖xb8 30.f5+–) 26.♕xg4 when 26...♘c7 is still impossible due to 27.♘d7.

25...♖a8?

25...♕d8

During the game, I thought Simon should try this move. I was intending:

26.♗d4

One of several good possibilities.

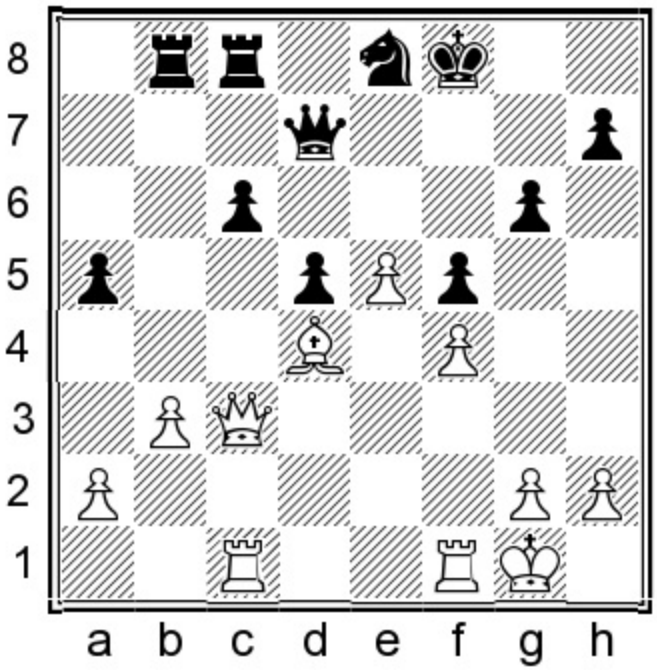
The impatient 26.♘e6 ♕d7 27.♘xg7 ♘xg7 28.♕xa5 ♘e6 allows Black's knight to find a dream square.

26...♗f8

26...♘c7 27.♕xa5 ♗f8 would be the best practical chance to resist, although White's extra pawn should eventually tell.

27.♘e6 ♕d7 28.♘xf8 ♔xf8

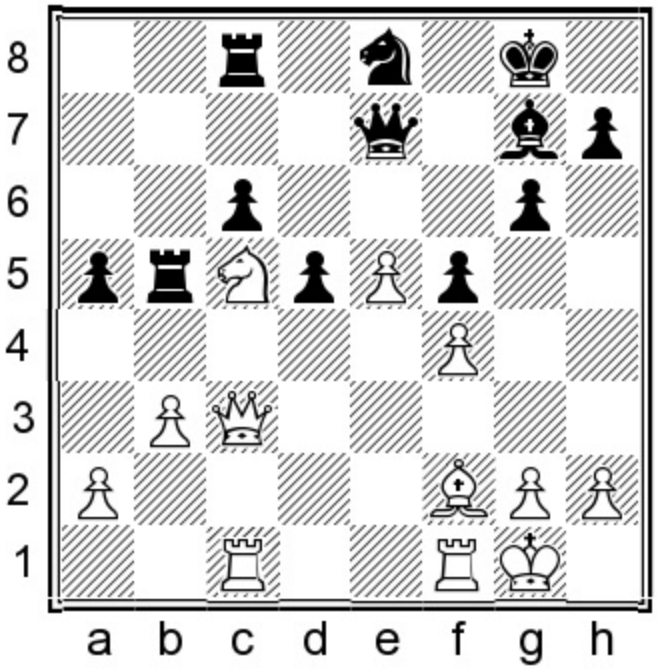
Black intends to bring the knight to e6 but there is an obvious problem:



29.e6! ♕xe6 30.♖fe1+–

Tearing Black's position in two.

It was also worth considering the logical:
25...♖b5

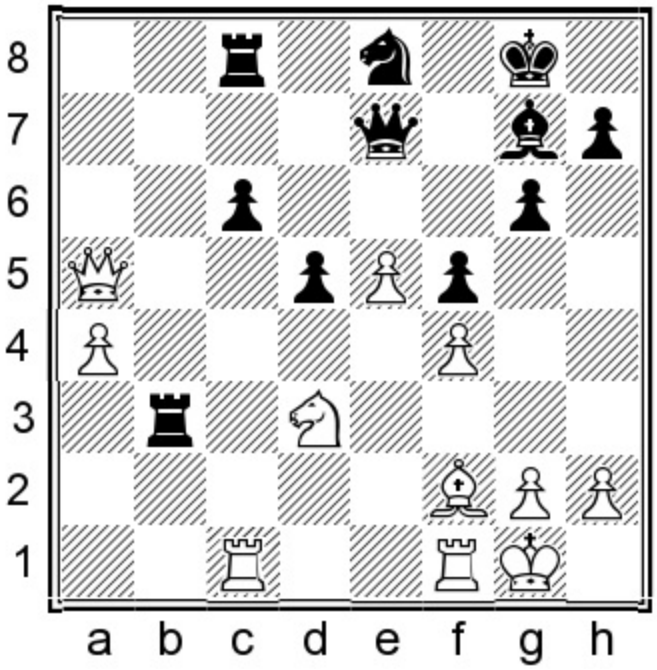


Keeping everything covered for the moment. White has a choice of promising continuations:
26.a4!?

This is the most forcing continuation.

The useful waiting move 26.♖fd1 is also tempting. Here are a few sample lines: 26...♗f8 (26...♘c7 27.a4 ♖b4 28.♘d3 ♖bb8 29.♕xc6 ♖xb3 30.♗b6+–) 27.a4 ♖b4 28.♘d3 ♖bb8 29.♕xa5 ♖xb3 30.♗c5 ♕c7? 31.♕xc7 ♖xc7 32.♗xf8 ♔xf8 33.♘c5 ♖a3 34.♘e6† White wins.

26...♖b4 27.♘d3 ♖b7 28.♕xa5 ♖xb3



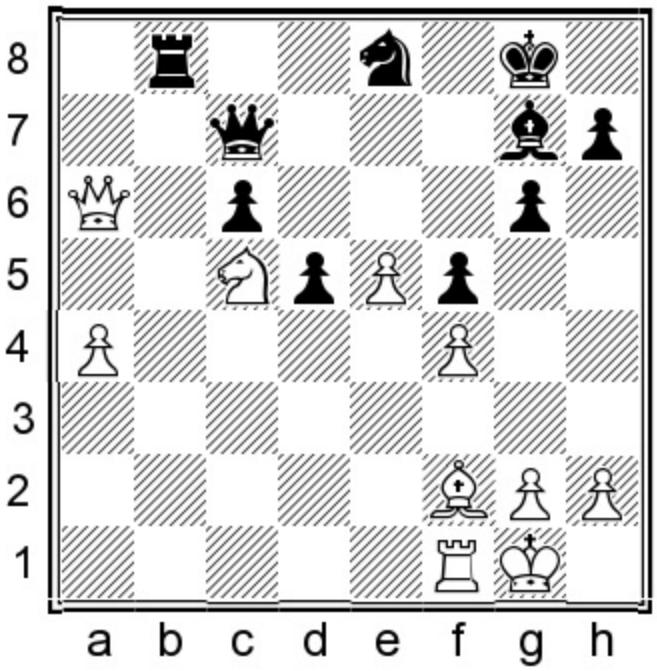
29.♖b1! ♖cb8

29...♖xd3? 30.♕a6+– is a nice detail.

29...♖xb1 30.♖xb1 leaves White in complete control.

30.♖xb3 ♖xb3 31.♘c5 ♖b8 32.♕a6 ♕c7

The passed a-pawn is a key factor here.



33.a5 ♗f8

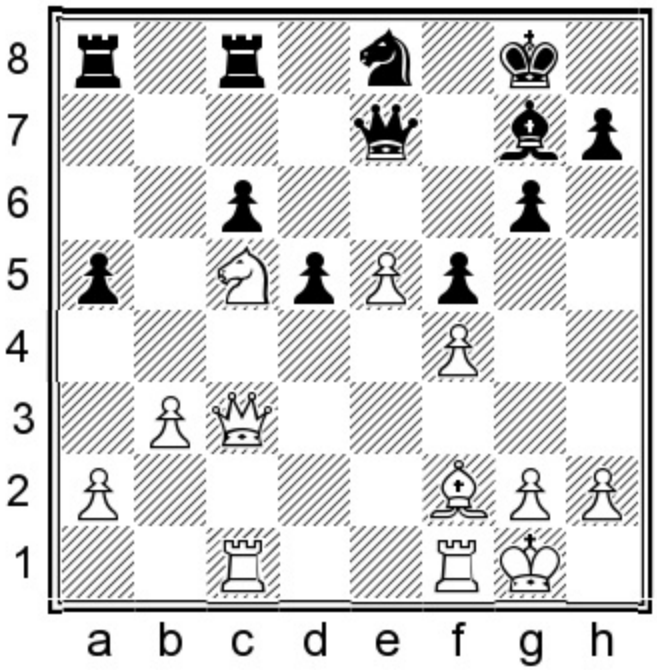
33...♖b5 34.♖a1 and the pawn should decide.

34.♘e6 ♕d7

34...♕c8 35.♕xc8 ♖xc8 36.a6 is also winning.

35.♘xf8 ♔xf8 36.♖c1 ♖c8 37.♕b6 ♘g7 38.a6 ♘e6 39.a7+–

Black finally succeeded in bringing the knight to its dream square, but the passed pawn is the deciding factor.



26.♘a4! ♖a6

Giving up a pawn with 26...♖ab8 was the last chance to prolong the game. The text move costs Black even more material.

27.♕d3

1–0

Black resigned, as material is dropping off after any of 27...♘c7 28.♘b6, 27...♖aa8 28.♘b6, 27...♕b7 28.♘c5 or 27...♖ca8 28.♘b6 ♖8a7 29.♘c8.

Scoring for Puzzle 16

Best move	Score	Evaluation
1.♕h3	**10**	**+2.5**
1.♘a6	7	+2.1
1.♕c3	7	+1.7
1.♘a4	7	+1.7
1.♔h1	6	+1.5
1.♘d3	6	+1.5
1.f5	6	+1.4
1.♕g4	6	+1.4
1.g4	6	+1.4
1.♖c2	6	+1.4
1.h4	5	+1.3
1.♗d4	5	+1.1
1.♖ce1	4	+0.9
1.♖fd1	4	+0.9
1.♗e1	4	+0.8
1.♖fe1	4	+0.8
1.Others	1	

Bonus points for correct evaluation

Between +0.6 and +0.89	1 point
Between +0.9 and +1.39	2 points
Between +1.4 and +2.99	**3 points**
More than +3.0	2 points
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This is one of the most enjoyable positions in the book, especially for those of you who love sinking

into deep contemplation. The correct move is not at all obvious, and will only become clear after you look progressively deeper into the position.

Progressive Deepening is a term used by Adriaan de Groot in his inspirational book *Thought and Choice in Chess*, which I mentioned on page 11 in my introduction, to describe the lengthy cogitation process needed for solving a difficult choice problem, as is the case with this one. The best move does not reveal itself until you dive deep into the variations and broaden your investigation. That moment of serendipity when you find the best move, after a long, logical thought process, is immensely satisfying. I hope you were able to reach that point too.

Adams Insight

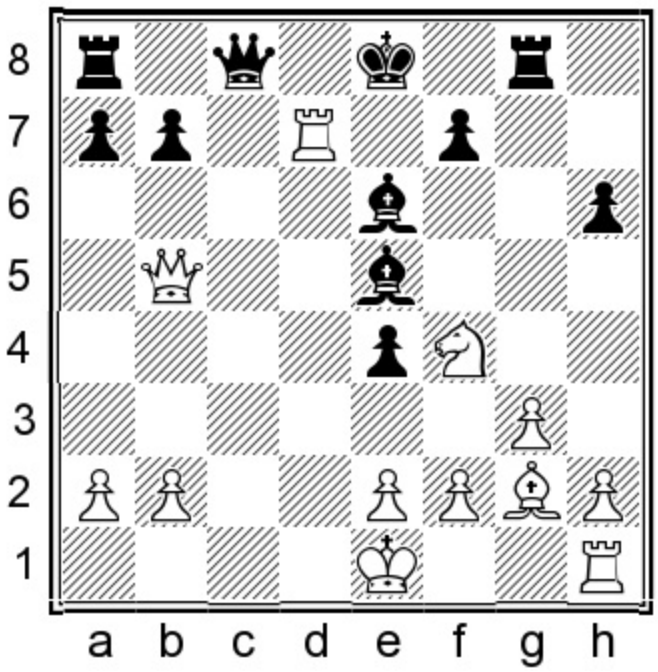
Phil has written about stronger players being more alert to their opponent's plans; see page 384 for more details about this. It's interesting to see that lower-rated players also sometimes think in this way; for instance, we saw Francisco adopting this approach in this puzzle. Phil and Renier also do the same thing in their comments, although Phil starts analysing in this way considerably later in his contemplation.

One of the tricky aspects of this puzzle is that White has so many good options to choose from. The queen relocation is the clearest way to improve my position, introducing two new and promising ways forward: ♘d7 and ♗h4, the former of which creates an immediate problem for Black. It's unusual to threaten to fork the enemy rooks in this way, with a knight move to d7 supported by the queen, so uncovering it requires some serious thinking. At the same time, the ♘d7 resource is a natural consequence of the excellent outpost the knight has already established on c5, as well as the extra space White enjoys on the kingside.

Positions 17-20

A Bit of Everything

Puzzle 17



Black to play – Level 7

Show/Hide Solution

Puzzle 17 – Sangfroid

Fermin Rodriguez
Elo 1544

00:30 My nephew would play here 1...♕c1† straight away.
02:00 One thing is clear: you are attacking my bishop on e5.

02:30 I have just seen a very interesting move: 1...♕c4 Which is probably the only move, as it defends against the discovered check.
03:30 This is a wonderful position by the way! Okay... now I am seeing more options. This position is very tactical with many intermediate moves. I am considering two main moves: 1...♕c4 and 1...♔f8.
03:45 I think 1...♔f8 is going to be the best move. Yes. 1...♔f8, is good.
05:00 1...♕c4 is good also. If you try and give me a discovered check I can take your queen. Okay, you might have a 2.♖d5†. 1...♕c4 2.♖d5† ♕xb5 3.♖xb5 and my kingside is a bit weak.
05:45 I think the move is going to be 1...♔f8.
06:30 The problem with 1...♔f8 though, is 2.♘xe6† fxe6 and my 7th rank is left very weak.
08:30 In a game I would have already played 1...♕c4, and think about it later.
"Okay, is that your move, Fermin?"
Yes.
"And Fermin, what is your evaluation?"
Maybe White is better. 1...♕c4 2.♕xc4 ♗xc4 3.♖xb7... No. I don't like 1...♕c4. Wait – I've just seen a better move – 1...♕xd7.
14:30 1...♕xd7 is better than 1...♗xd7. I don't want you to take my bishop on e5 with check. Yes. 1...♕xd7 is definitely better.
16:45 I play 1...♕xd7 Now I do think I am better. 1...♕xd7 2.♕xe5.
17:00 Black is better. I have a good pair of bishops. And let's not forget I am an exchange up. My pawn on e4 is a bit weak though.

1...♕xd7

Evaluation: –0.60

Jorge Granell
Elo 1673

00:15 The first move that comes to mind is 1...♗xd7, taking the rook and threatening the queen.
01:30 It's quite a complex position. I am quite afraid of the discovered checks. Also my bishop on e5 is being attacked.
02:00 If I play 1...♗xd7, he can play ♕xe5 with check.
02:30 I could move my bishop first, and then play ...♗xd7. Maybe 1...♗xf4.
03:00 No, that is scary. 1...♗xf4, and he can give me a discovered check. 2.♖c7† ♗d7 3.♖xc8† and I lose my queen.

03:30 I am now thinking of the move 1...♗c3†.
06:00 1...♗c3† 2.bxc3 ♕xc3† is very dangerous for him. 3.♔f1 ♕c1†
06:45 So after 1...♗c3† 2.bxc3 ♕xc3†, he can play 3.♔d1 ♗xd7 and I am attacking his queen, and his king is exposed.

07:00 I need to revise this line.
09:00 1...♗c3† 2.bxc3 seems forced. 2...♕xc3† 3.♖d2† Now I could play maybe 3...♔e7, or ♔f8, and bring one of my rooks to d8 to take advantage of the pin.
(Thinks a bit longer.)
10:30 My final move is **1...♗c3†** with advantage to Black.

Evaluation: –1.5

Philip Hurtado
Elo 1924

00:06 The obvious 1...♕c1† doesn't work due to the counter 2.♖d1†.
00:20 So I feel I should either move my king or play ...♗xd7.
00:30 First, let's see what's wrong with 1...♗xd7.
01:10 Oh! If I take 1...♗xd7, he has 2.♕xe5†. I've just realized he was attacking my e5-bishop.
01:50 Yes. It feels like after 1...♗xd7, 2.♕xe5† gives White a very strong and possibly winning attack.
02:30 Taking with the queen seems better. 1...♕xd7 and he can't take my queen as that would lead to a hopeless endgame for him. So his only option is to play 2.♕xe5.
09:15 I can't see anything wrong with 1...♕xd7 2.♕xe5. I think I am winning. I could then play ...0-0-0 or find a better move. My weaknesses on the black squares could be amended by attempting to exchange queens, e.g. 2...0-0-0 3.0-0 ♕c7.
09:30 The truth is, White has some compensation as he will take my second pawn on e4 and my king's a bit exposed. So perhaps my advantage is not as great as I think.
10:05 I am finally trying to look at some "clever" tactical possibilities such as 1...♕c4 or 1...♗c3†.
10:35 But these all seem rubbish.
15:08 I am looking now at 1...♗xf4!?. It may also be rubbish, but there is an interesting line: 2.♖c7† ♗d7! 3.♖xc8† ♖xc8 and now I am threatening both his queen and mate.
16:30 This is definitely a puzzle-like move. Let me recheck it: 1...♗xf4! 2.♖c7† Seems best. 2...♗d7! 3.♖xc8† Seems best. 3...♖xc8 Yeah! And he has no checks, or a square to move his queen to, to avert mate.
17:23 Black is totally winning!
1...♗xf4!!

Evaluation: –5.0

Renier Vazquez
Elo 2551

00:10 This position is very sharp.

00:20 Phew! What a position!
00:40 My impressions: Firstly, I don't know who is better. I don't know if I am winning or if I am losing. There are many hanging pieces. And there is also a very dangerous discovered check looming. The important thing in these situations is that you maintain your sang- froid.
I would not waste even a second considering positional moves. I need to calculate.
00:45 As I said, the important thing is to keep calm, especially with regard to White's discovered check.

(Thinks in silence.)

01:30 If I take the rook with 1...♕xd7 White can simply take my bishop. 2.♕xe5 After which I would be much worse. So that would be my last resort move.
01:45 Talking about sang-froid, I am considering the cool 1...♗xf4 2.♖c7† ♗d7. White cannot happily take my queen, as after 3.♖xc8† ♖xc8 I am threatening mate on c1.
02:00 When one sees such a beautiful idea he should always be concerned and make sure he correctly revises the line, as it is easy to miss some intermediate move. I have always disciplined myself to recheck my calculations before committing to such a beautiful and decisive move.

(Revises 1...♗xf4, in silence.)

03:00 1...♗xf4 seems to be winning. 2.♖c7† ♗d7 3.♖xc8† ♖xc8 And now I am threatening both the queen, and mate on c1.
03:15 Yes, I am going for **1...♗xf4**.

Evaluation: Black is winning

Player comments at the end:
"I have taught myself to pause and recheck my lines every time there is a brilliant winning combination. The reason is not that I do not trust my calculation; the reason is that often we get so excited we overlook an unexpected reply that the opponent had in store. Something which has often occurred to me in the past."

Deeper Analysis by Michael Adams

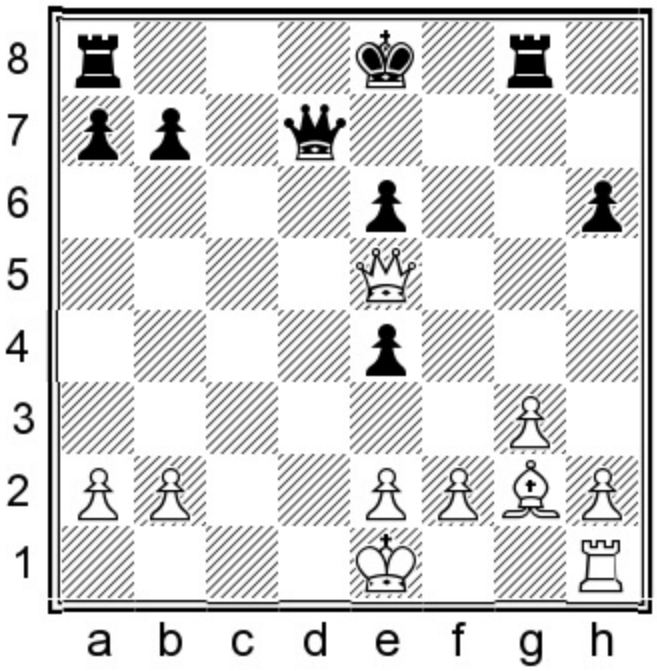
Michael Adams – SP Sethuraman

Gibraltar 2017

1.c4 e5 2.g3 c6 3.d4 e4 4.♘c3 d5 5.♗g2 ♘f6 6.cxd5 cxd5 7.♗g5 ♘bd7 8.♕b3 ♗d6 9.♘h3 h6 10.♗f4 ♘b6 11.♗e5 ♘g4 12.♗xg7 ♖g8 13.♗e5 ♘xe5 14.dxe5 ♗xe5 15.♖d1 ♗e6 16.♘xe4 ♕c8 17.♘f4 dxe4 18.♕b5† ♘d7 19.♖xd7?

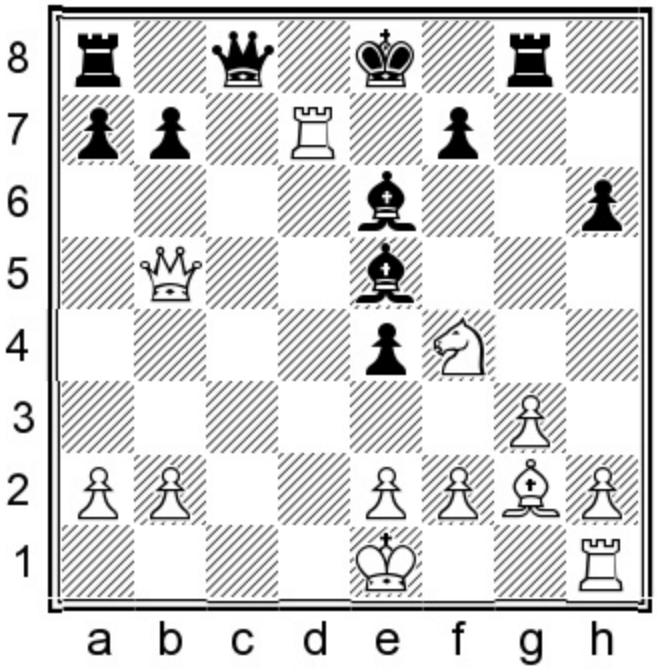
A blunder on my part.

The simpler 19.♘xe6 fxe6 20.♖xd7 ♕xd7 21.♕xe5 keeps some White advantage:



Once I castle my king will be very safe, and the bishop is a very powerful piece here. 21...♕d5 22.♕c7 ♕xa2 23.0-0 ♕d5 24.♕h7 0-0-0 25.♗xe4 ♕d7 26.♕xh6±

Some of you may have found this puzzle fairly easy; but in the heat of battle, I failed to solve this correctly, and got away with murder when my 2637-rated opponent also didn't twig. During the game the crucial moment passed by quite quickly.



19...♕xd7?

19...♗c3†? can simply be captured: 20.bxc3! (but not 20.♖d2†? ♗d7! when Black is better) 20...♕xd7 (20...♕xc3† 21.♖d2† ♔f8 22.♕b2+–) 21.♘xe6 fxe6 22.♕h5† ♕f7 23.♕xh6±

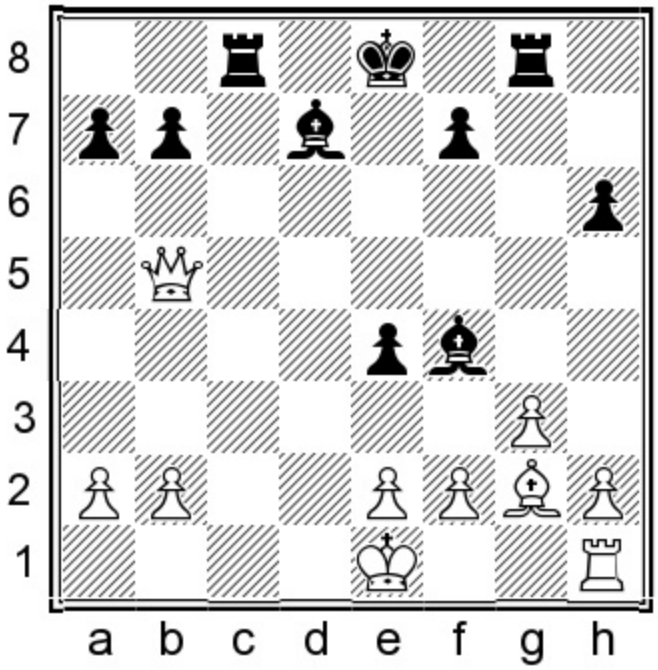
19...♗xf4! would have refuted my previous move. There are three moves worth mentioning:

a) I got as far as:

20.♖c7†?

This just seems to win the queen. I stopped my calculations here, but if you look just a little deeper...

20...♗d7! 21.♖xc8† ♖xc8



The attack on the queen combined with the threat of ...♖c1 mate mean Black is simply winning. The bishop on f4 has a starring role, defending the key e5-square to prevent White giving check, and controlling d2 to prevent my king from fleeing.

22.♕b3 ♖c1† 23.♕d1 ♖xd1† 24.♔xd1 ♗c6!

Black does not even have to move the bishop from f4 yet, thanks to the pin along the g-file. Thus Black wins without any technical difficulties – one meagre pawn is nowhere near enough for the bishop.

I was fortunate that I was blissfully unaware of the possibility until after the game was over, so I didn't give any hints about the possibility with my body language. I don't think my opponent realized what he had missed at any point during the game either.

Instead of the faulty queen grab analysed above, White has a couple of better ways to generate practical chances:

b) 20.♖d4†!? ♕c6

Forcing a queen exchange is simplest.

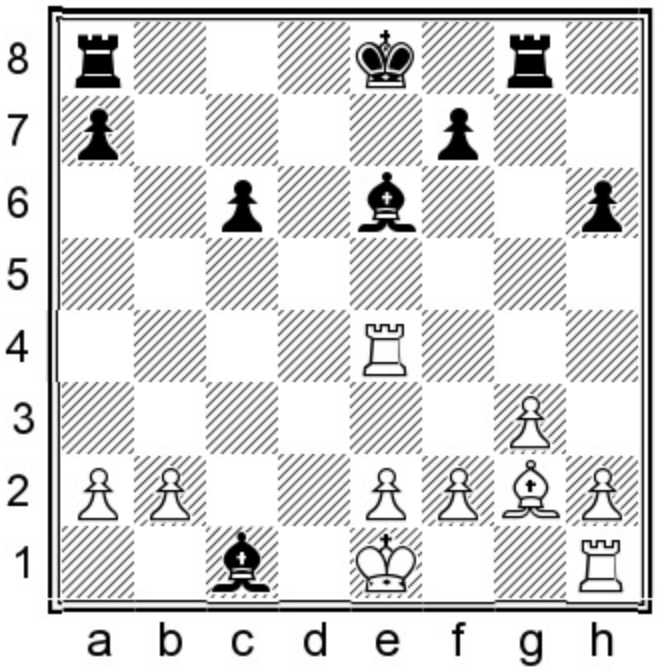
20...♔e7 21.0-0 gives White some vague hopes due to the exposed king.

20...♗d7 21.♕d5 ♕c1† 22.♖d1 ♕c6 23.♗xe4 ♗c7 24.♕d4 ♕a4 should ultimately be winning for Black, but it's hard to imagine any human player choosing this path instead of simply swapping

queens.

21.♕xc6† bxc6 22.♖xe4 ♗c1!

Gaining a useful tempo. White has nothing better than:

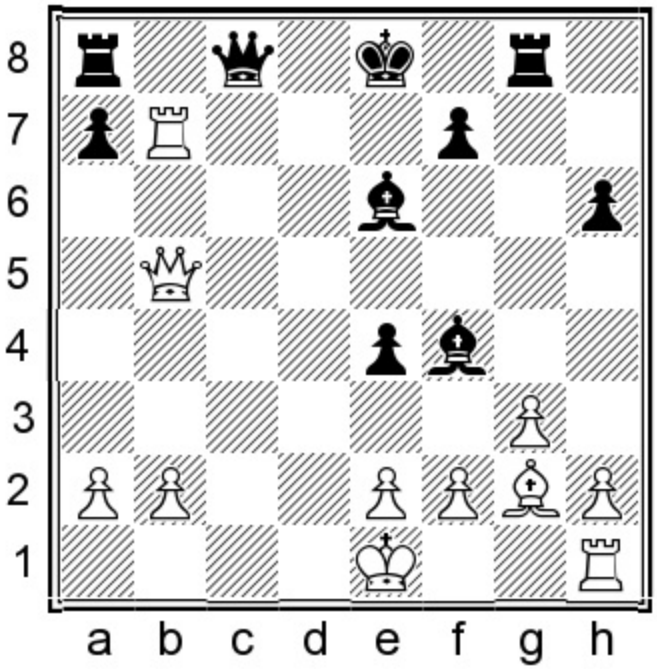


23.♖xe6† fxe6 24.♗xc6† ♔e7 25.♗xa8 ♖xa8 26.b3 ♖c8

Black should win: his pieces are more active, and the white pawns have little potential to move forward.

c) 20.♖xb7†!

Had my opponent found the right move, this would have been the best fighting chance.



20...♗d7

20...♔f8? allows an immediate draw with 21.♕b4† ♔g7 22.♕d4†, when Black has nothing better

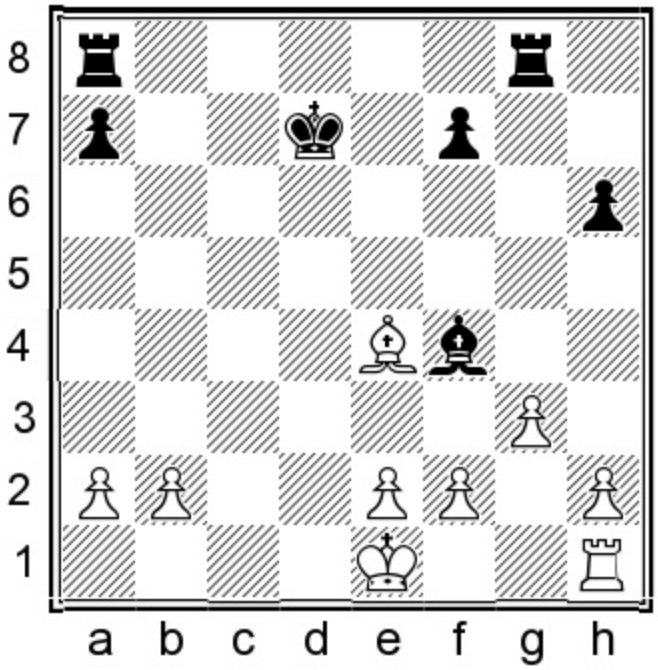
than returning with 22...♔f8.

21.♕xd7†!

21.♖xd7! ♕xd7 22.♕xd7† ♔xd7 transposes.

21...♕xd7 22.♖xd7 ♔xd7 23.♗xe4

White is getting some material back.



23...♖ab8!

23...♖ae8? 24.♗f5† ♔e7 25.gxf4 leaves Black with little, if any, advantage.

23...♗e5 24.♗xa8 ♖xa8 25.b3 gives Black good winning chances, although White has a slightly better version of the endgame at the end of the 20.♖d4†!? line above.

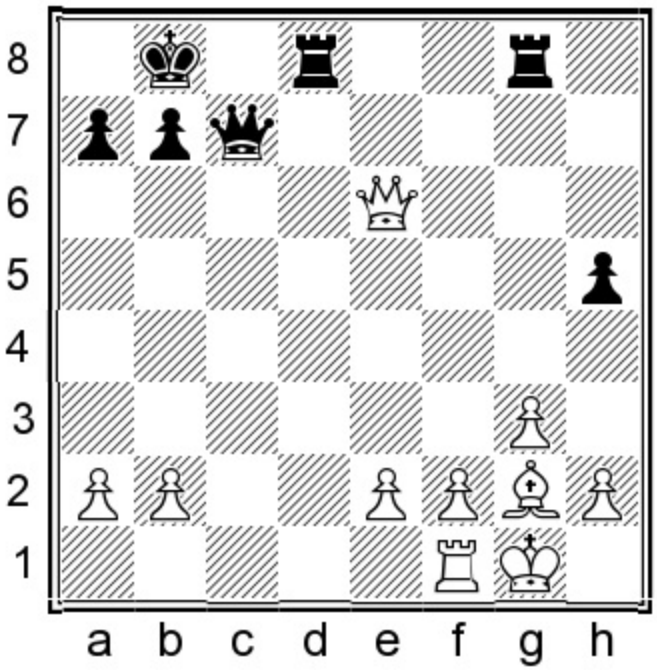
24.gxf4 ♖xb2 25.f3 ♖g2 26.♗d3 ♖xa2 27.♔f1 ♖g8 28.♔f2

White can continue to resist, although the passed a-pawn should decide.

20.♕xe5 0-0-0

Now White has massive compensation for the exchange, and the position is much easier for me to play.

21.0-0 ♕c7 22.♕xe4 ♔b8 23.♘xe6 fxe6 24.♕xe6 h5



With three pawns for the exchange, plus a powerful bishop and a much safer king, White is winning, and I converted without further mishaps. A later position from the game is featured in Bonus Puzzle 43 on page 335, with the complete game score featured in the solution.

Scoring for Puzzle 17

Best move	Score	Evaluation
1...♗xf4	**10**	**–2**
1...♕xd7	2	+0.7
1...♗c3	1	+1.8
1...♗xd7	1	+3

Bonus points for correct evaluation

Between –0.6 and –0.89	1 point
Between –0.9 and –1.39	2 points
Between –1.4 and –2.49	**3 points**
Lower than –2.5	2 points
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Over the board, most players panic when they are faced with a nasty discovered check. This obfuscates our thinking, as we focus all our attention on trying to minimize the damage when it is delivered. When discussing this position with my good friend Renier Vazquez, he mentioned to me that he has learned that panic and calculation make bad bedfellows – the key is to remain cool.

I am pretty sure most of us would not have found the solution to this puzzle if the position arose live over the board.

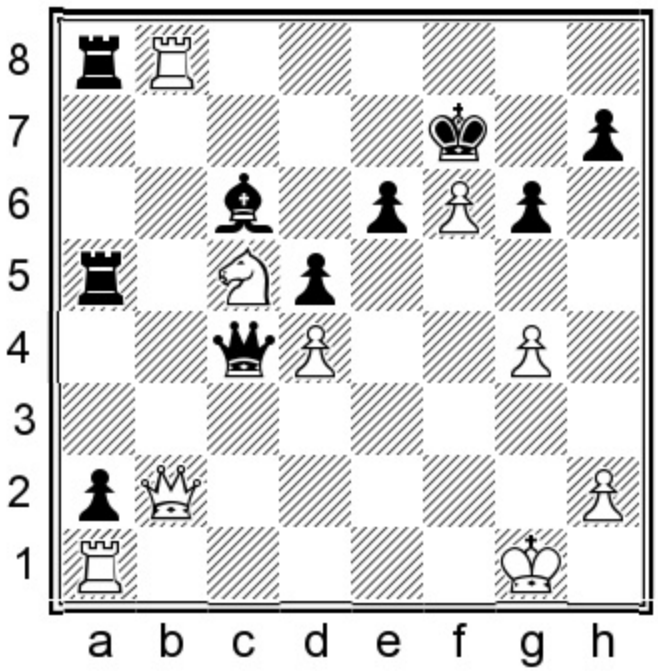
Adams Insight

Both players were guilty of lazy calculation in this game. We were both well capable of seeing the crucial variation, yet we both failed to look far enough or think for long enough at the board. We just assumed the discovered check would win. Renier's advice to take your time in complex positions,

and check your calculations is very sound, but I did notice that he personally solved the position in just over 3 minutes!

It's also worth noting that White has some better options than 2.♖c7†. Both of them garner quite a few pawns and some worthwhile practical chances to fight on, which no one mentioned in their comments. This shows the danger of not checking for alternatives when you see a pleasing tactical variation. Phil and Fermin also struggled to assess the continuation that occurred in my game. After 1...♕xd7 they gave Black the advantage, but actually White is much better there: the exchange is less relevant than the extra pawns and king safety in that scenario.

Puzzle 18



White to play – Level 10

Show/Hide Solution

Puzzle 18 – Monster Machines

Louise Head
Elo 2090

00:20 Doing a piece count. Black is a pawn up.
00:50 The f6-pawn is vulnerable. I am looking for possible checks. 1.♖b7† ♔xf6
01:00 I don't want to move my rook on a1.
01:20 I would like to play 1.♕b6, but 1...♕xd4† is an annoying reply.
02:00 The black queen doesn't have many squares to go to either. So, 1.♖b4 might be a solution.

03:20 I'll look first at the rook check. 1.♖b7† ♗xb7 2.♕xb7† ♔xf6 doesn't seem to work. So I'll stop looking at that line.
03:50 I am looking at 1.♖b4, and 1.g5 to force Black's king onto the back rank when I check on b7.
04:20 1.g5 is definitely a good starting move.
05:15 But Black could reply 1.g5 ♖xb8, then 2.♕xb8 ♕xd4† and Black has at least a perpetual.
05:30 So I don't think I can get away with 1.g5.
07:00 Back to 1.♖b4 ♖xc5 (forced, I think) 2.♖xc4 and White is definitely better.
09:00 Ah. But there is 1...♖b5.
10:25 I am looking at 1.♖b7† again.
11:00 1.♖b7† ♗xb7 2.♕xb7† ♔xf6 3.g5†! looks quite strong.
12:30 It is quite a complicated position. It has very long lines.
14:00 1.♖b7† ♗xb7 2.♕xb7† ♔xf6 3.g5† ♔f5 4.♕f7† ♔xg5 (or 4...♔g4)
15:20 After 4...♔xg5 I have 5.♘xe6†, and it feels I am giving checkmate. But he can play 4...♔g4. However, 4...♔g4 5.♕xe6† ♔xg5 I think this works for White.
16:40 Even if the king runs away to the h-file, I'll probably be able to have some mating threats.
21:30 I definitely go with 1.♖b7†.
23:40 The question is if Black can survive.
24:00 I think **1.♖b7†** leads to mate.

Evaluation: +6.0

Harriet Hunt
Elo 2414

00:05 What on earth is going on here?
01:00 1.♖b4 looks like a good move. Does it win a queen? No. There is 1...♖b5.
01:20 I should also have a look at 1.♖b7†.
02:00 If we don't do anything soon, we will be worse, due to our stranded rook on a1.
02:15 Our knight is much better than Black's bishop.
03:00 Black's immediate threat is 1...♖xb8 followed by ♕xd4†.
Okay, I am going to start looking at these in some detail.
(Thinks in silence.)
10:00 My feeling is that there is a perpetual, starting with 1.♖b7†.
12:00 1.♖b7† ♗xb7 (If 1...♔xf6 2.♕f2†) 2.♕xb7† ♔xf6 Only move, otherwise they get mated. Now if 3.♘d7† ♔g5, I don't see the follow-up, and we run out of checks. And if 3.♖f1† ♕xf1†, and we will stand there looking silly.
13:00 The other option after 2...♔xf6 is to play 3.g5† ♔xg5.
14:00 Now, 4.♘xe6† and the question now is if Black can play 4...♔g4?
15:00 Black could go to g4 or f6.
16:00 Alternatively, after 3.g5† ♔xg5 I could play 4.♕e7† ♔h6 5.♕h4†. But this may lead to a

perpetual.
17:00 1.♖b7† is clearly the move we have to play.
17:30 Unless I missed the win. It is either exactly 0.0, or 1–0 to White. I think the best line is: 1.♖b7† ♗xb7 2.♕xb7† ♔f6 3.g5† ♔xg5 4.♕e7†
17:45 I suspect I might be missing a win for White, but can't see it. We certainly won't lose.

1.♖b7†

Evaluation: 0.0

Keith Arkell
Elo 2429

00:10 Can I worm my queen into the position? 1.♕b6 and ♕c7†.
01:00 As Black, I would consider the option of 1...♖xc5.
01:20 Black is threatening 1...♖xb8 followed by 2...♕xd4†.
01:45 If I play 1.♕b6, Black plays 1...♕xd4†. Could I run away from those checks? No. 1.♕b6 is awful.
02:20 If I play 1.♘xe6, the beauty of this move is that it protects d4, allowing my queen to go to b6. It also allows me to take on b8 after Black plays 1...♖xb8.
03:00 Oh! Wait! I have seen something nice. And 1.♘xe6 could be a knockout.
04:00 1.♘xe6 ♖xb8 2.♕xb8 ♔xe6 3.♖e1† That looks really strong!
(Analyses silently.)
05:00 What about 1.♖b4 – where is the queen going? Aren't I just trapping the queen?
05:40 No. 1.♖b4 is rubbish.
06:00 So back to my original idea then: 1.♘xe6 And I haven't seen a refutation yet. 1.♘xe6 ♔xe6 2.♖e1† ♔xf6 3.♕f2† ♔g5 This looks like it's leading to mate.
(Thinks again in silence.)
07:00 I am stopping here. 1.♘xe6 is my move. It may actually be the only move.
07:15 It is difficult to assess. Even harder to give an evaluation. But I'd say White is slightly better.

1.♘xe6

Evaluation: +1.5 (Although I could be out by 5!)

Michael Adams
Elo 2701

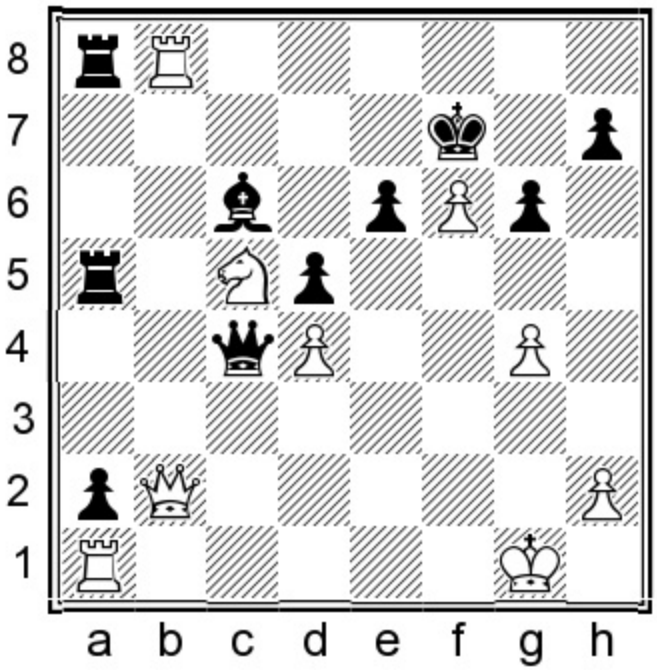
00:40 It looks like Black is threatening 1...♖xb8 2.♕xb8 ♕xd4†.
00:55 1.♖xa8 ♖xa8 doesn't look very promising. And White is a pawn down.
01:20 White needs other measures. 1.♖b7† could be possible.

02:00 1.♖b7† ♔g8 2.f7† looks dangerous.
04:20 1.♖b7† ♗xb7 2.♕xb7† ♔xf6 needs to be looked at. What other options do we have?
1.♘b7, maybe? 1.♘b7 ♖xb8 2.♘d6† ♔xf6 3.♕f2† ♔e7 4.♘xc4 ♖b1† and Black is winning.
06:00 So going back to 1.♖b7†.
(Thinks for a while.)
10:00 I have the feeling White is giving perpetual somehow.
I think for the moment the best is 1.♖b7†.
13:00 1.♖b7† ♗xb7 2.♕xb7† ♔xf6 3.g5† ♔xg5? 4.♕e7† and Black is in trouble.
13:30 So after 1.♖b7† ♗xb7 2.♕xb7† ♔xf6 3.g5† Black has to play 3...♔f5 4.♕f7† ♔g4 (only move) 5.♕xe6† ♔h4 6.♕e1† ♔h5 (only move) But Black could be escaping.
14:00 My move is **1.♖b7†**.

Evaluation: Draw by perpetual (0.0)

Deeper Analysis by Michael Adams

Computer – Computer



A computer game, and a very computer-style position, White has to act fast in attack, due to the extra passed pawn on a2. A lot of players investigated the forcing sequence after 1.♖b7†, but it takes much more imagination to conceive of, and believe in, the correct solution.

1.♘xe6!

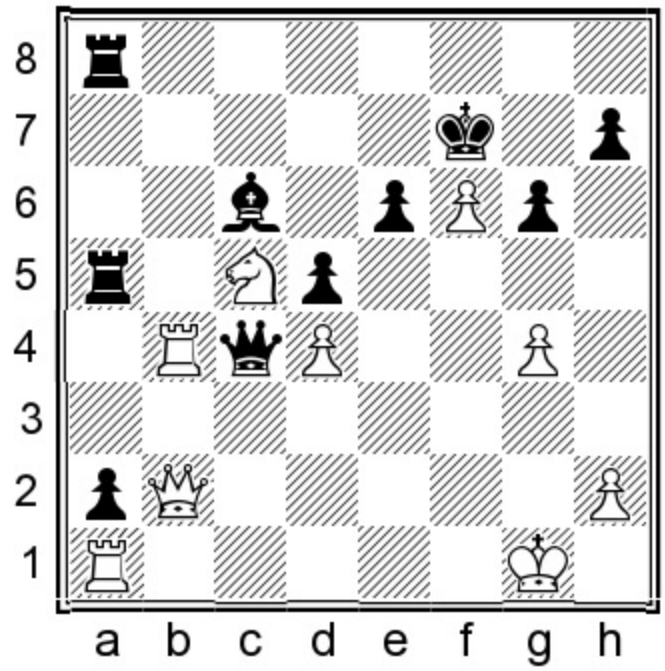
A beautiful quiet move, appreciated by Keith. With the board on fire White captures an insignificant pawn, but the idea of ♘g5† and the fact that the knight defends d4 are crucial, so this

does the job in style.

1.♖xa8? ♖xa8 trades off White's active rook, leaving Black with a won game.

1.g5? ♖xb8 2.♕xb8 ♕xd4† 3.♔g2 ♕d2† wins for Black, as White's king has no safe square: 4.♔g1 ♕xg5†, 4.♔h1 d4† and 4.♔f3 d4† are all hopeless for White.

The red herring 1.♖b4? looks like it traps the queen:

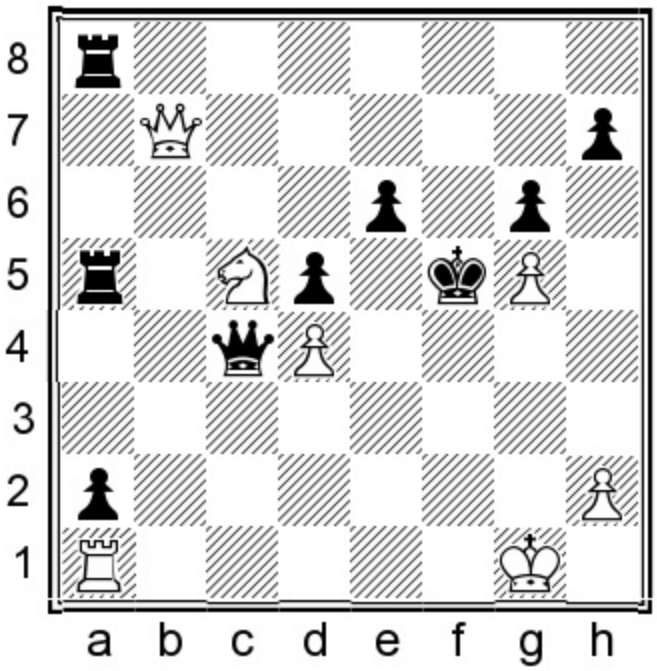


But 1...♖b5! turns the tables: 2.♖xb5 ♗xb5 3.♘b7 ♔xf6 4.♘d6 ♕e2 5.♕xb5 ♕xg4† 6.♔h1 ♕xd4 7.♕f1† ♔e7 8.♘b5 ♕e4† 9.♔g1 ♖a4 White's cause is hopeless, as 10.♘c3? runs into 10...♕e3†.
1.♘b7? allows Black to garner much too much material for the queen: 1...♖xb8 2.♘d6† ♔xf6 3.♕f2† ♔e7 4.♘xc4 ♖b1† 5.♔g2 dxc4†–+
1.♖b7†!?

This direct check is the second-best move. Louise got many of the variations correct, but misevaluated it as winning for White. Harriet and I both accurately calculated it to a draw, not realizing White should aim higher.

1...♗xb7 2.♕xb7† ♔xf6 3.g5† ♔f5!

3...♔xg5? 4.♕e7† ♔h6 5.♘xe6 wins.



4.♕f7† ♔g4!

4...♔xg5? gets mated: 5.♘xe6† ♔h5 6.♕f3† ♔h4 7.♕g3† ♔h5 8.♕g5#

5.♕xe6†

Even here the quiet 5.♘xe6!? has its merits, such as defending d4, but 5...♕d3 6.h3†! still leads to a draw.

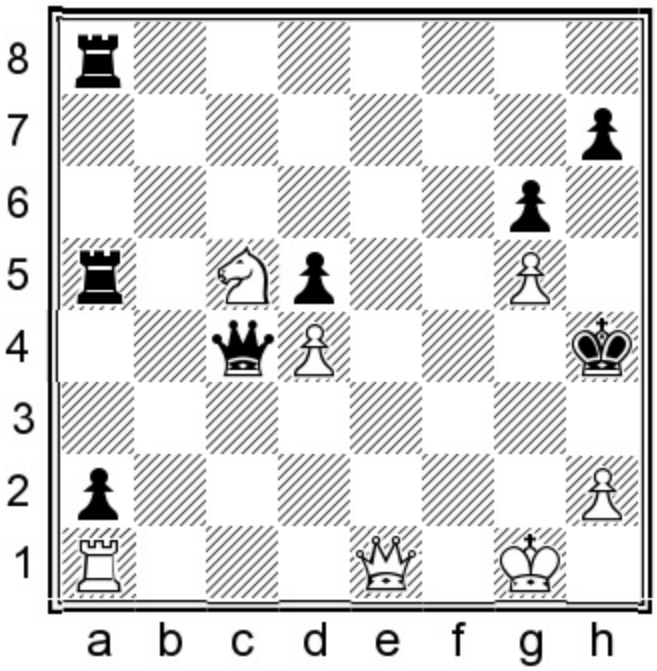
5.h3†!? is a tricky try, when Black has to find the only move 5...♔xh3! to draw: 6.♕f3† ♔h4 7.♕f2† ♔h5 8.♕f3† ♔h4=

5...♔h4

5...♔xg5? loses: 6.♕e5† ♔g4 (6...♔h6 7.♘e6+–) 7.♘e6 ♕d3 8.♕f4† ♔h3 9.♘g5#

5...♔h5 6.♕h3† ♔xg5 also draws though.

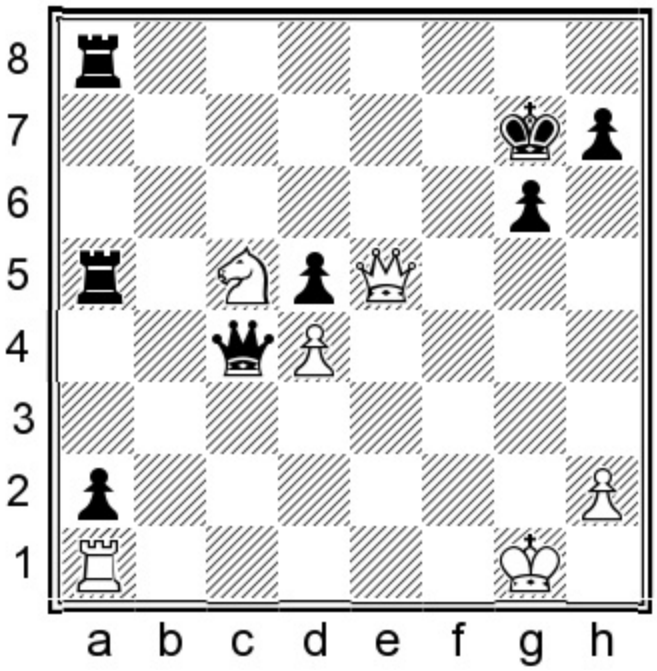
6.♕e1†



6...♔h5! 7.♕d1†

7.♘e6!? ♖b5 8.♕d1† ♔h4 9.♕e1† ♔h5=

7...♔xg5 8.♕d2† ♔f6 9.♕f4† ♔g7 10.♕e5†

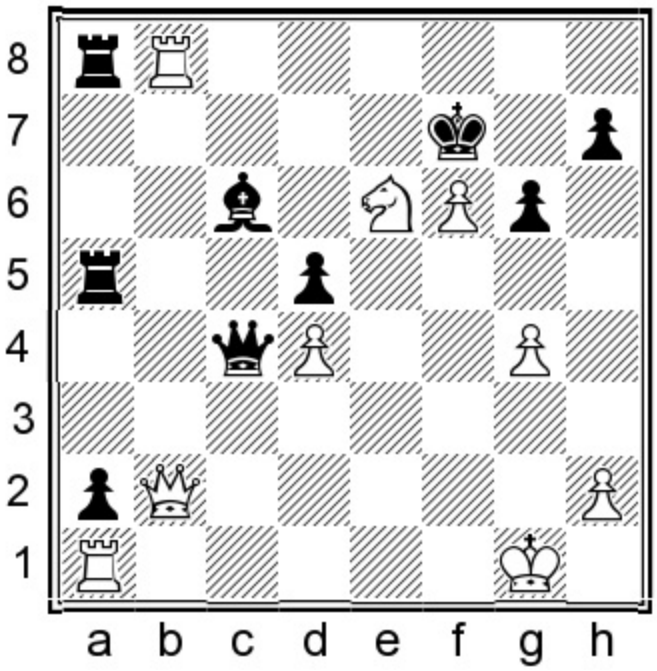


10...♔g8

Avoiding the last pitfall: 10...♔h6? 11.♘e6+–

11.♕e6† ♔g7 12.♕e5†

With perpetual check.



1...♔xe6

The different options are not at all straightforward to work out.

1...♔xf6? is the exception, as it opens up the king without removing any material: 2.♕f2† ♔e7 3.♕f8† ♔xe6 4.♖e1† ♔d7 5.♕e7#

1...♖xb8 2.♕xb8!

The key point understood by Keith: since Black has no immediate threats, White can calmly recapture. The knight's main role on e6 is to hold everything together, most notably by defending d4.

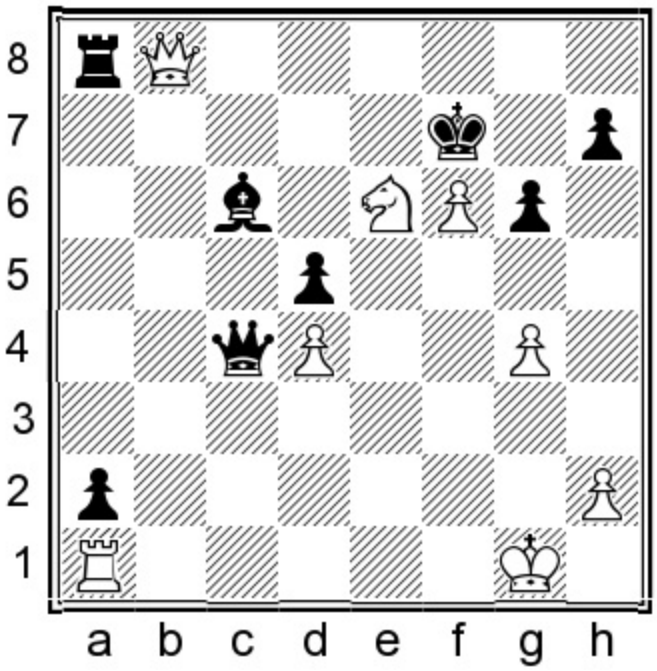
2.♘g5†? ♔xf6 (2...♔f8?? 3.♕xb8†+–) 3.♕f2† loses as follows: 3...♔e7! (3...♔xg5? 4.♕e3† leads to a perpetual no matter which way the king goes; 3...♔g7!? is an alternative winning line which gets there in a more complex way after 4.♕f7† ♔h6 5.♕xh7† ♔xg5 6.♕e7† ♔xg4 7.♕e6† ♔f3 8.♖f1† ♕xf1†) 4.♕f7† ♔d6 5.♘e4† (5.♕f4† ♔d7 6.♕f7† ♔c8–+) 5...dxe4 6.♕xc4 ♗d5 7.♕c2 e3 White's queen will soon be overwhelmed.

2...♖a8

2...♔xe6 3.♖e1† ♔f7 4.♖e7† ♔xf6 5.♕e5#

2...♔xf6 3.♕f8† ♔xe6 4.♖e1† ♔d7 5.♖e7† ♔d6 6.♕f6#

2...♕d3 3.♘g5† (3.♕f8† ♔xe6 4.♕e7#) 3...♔xf6 4.♕e5#



3.♘g5†! ♔xf6 4.♕e5#

A neat mating pattern! The queen and knight complement each other perfectly.

1...♖b5!?

Another very tricky response – once again there is only one winning line.

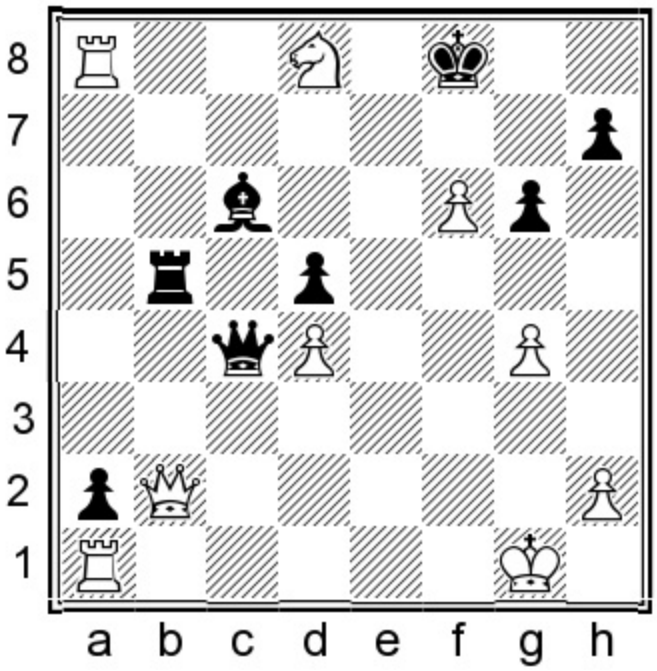
2.♘d8†!

2.♘g5† ♔xf6 3.♕f2† ♔xg5 4.♕e3† ♔xg4 5.♕g3† ♔h5 6.♕h3† ♔g5 7.♕g3† ♔h5 is only a draw.

2...♔f8

2...♔xf6 3.♕f2† ♔g5 4.♘e6† ♔xg4 5.♕f4† ♔h5 6.♘g7#

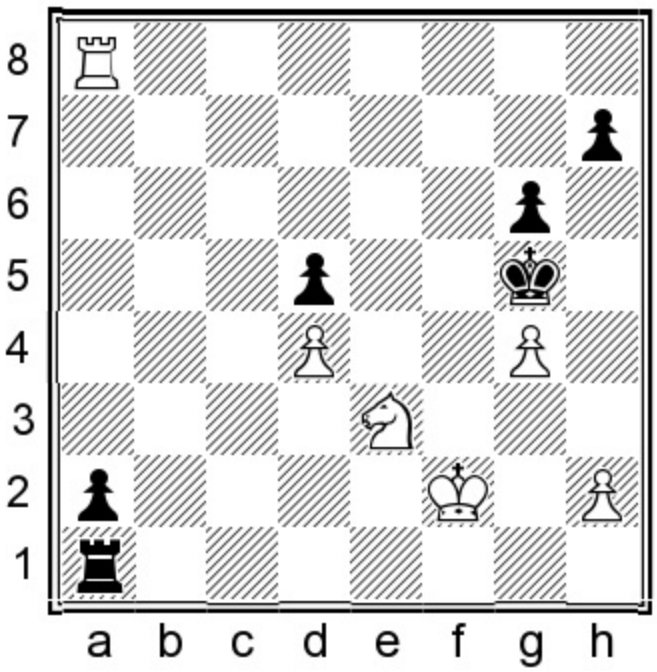
3.♖xa8



3...♖xb2

Another nice line is: 3...♗xa8 4.♕a3†! The exchange of rooks has freed this square for White's queen. 4...♕b4 5.♘e6† ♔f7 6.♘g5† ♔xf6 7.♖f1† ♔xg5 (7...♔e7 8.♖f7† ♔d6 9.♕g3† ♔c6 10.♕c7#) 8.♕e3† ♔xg4 9.♖f4† ♔h5 10.♕h3† ♔g5 11.♕h4#

4.♘xc6† ♔f7 5.♘e5† ♔xf6 6.♘xc4 ♖b1† 7.♔f2 ♖xa1 8.♘e3 ♔g5



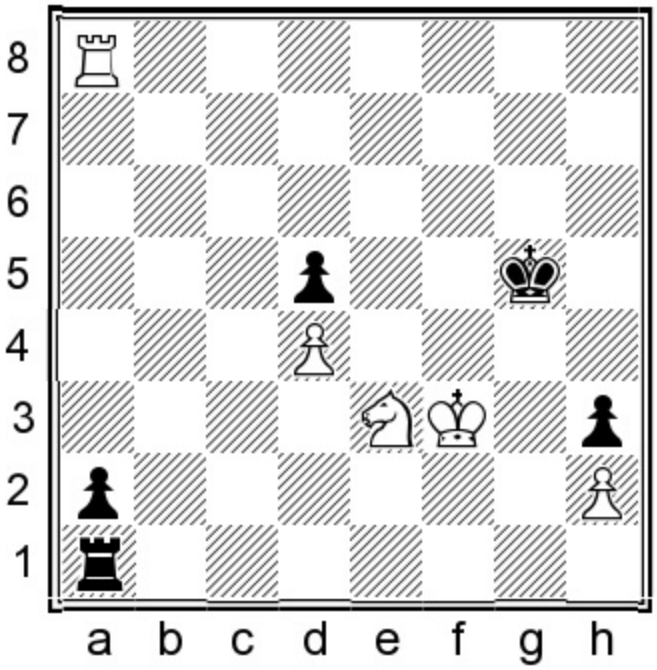
9.♔f3

This endgame may not look entirely clear, but the a2-pawn isn't actually going anywhere, and White will eventually win.

9...h5

9...♔h4 10.♖a3 ♔h3 11.♘xd5 ♔xh2 12.♘e3+–

10.gxh5 gxh5 11.♖a3 h4 12.♖a8 h3



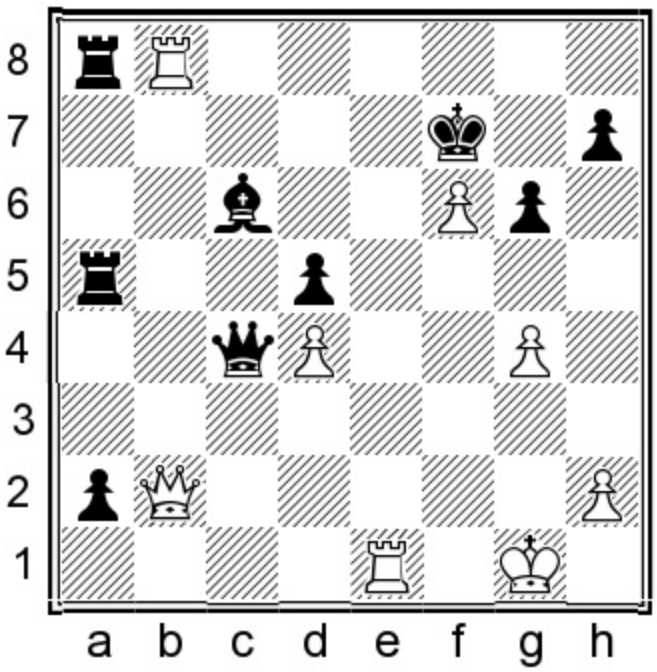
13.♖a3 ♔g6 14.♔f4 ♔f7 15.♘c2 ♖h1 16.♖xa2 ♖xh2 17.♔g3 ♖h1 18.♘e3+–

2.♖e1† ♔f7

2...♔d6 loses to 3.f7 and White will queen with check.

2...♔xf6 3.♕f2† ♔g5 4.♖e5† ♔h6 5.♕f8#

2...♔d7 3.♖b7† ♔c8 (3...♔d6 4.♕b6+–) 4.f7 ♕xd4† 5.♕xd4 ♔xb7 6.♕b4† ♔a6 7.♖a1 White wins.



3.♖b7†!

3.♕b6 is less impressive: 3...♕xd4† 4.♕xd4 a1=♕ 5.♖xa1 ♖xa1† 6.♔f2 ♖1a2† 7.♖b2! Interposing the rook keeps White material ahead. 7...♖8a4 8.♕e5 ♖xb2† 9.♕xb2 ♖f4† 10.♔g3 ♖xf6± White has winning chances, but the outcome is far from certain.

3...♔f8

3...♗xb7? 4.♕xb7† ♔xf6 5.♕e7#

4.♕d2!

This quiet move, leaving the rook hanging and allowing the a-pawn to promote, is also not easy to see in advance. White has to keep edging the queen nearer to the black king, while Black's pieces are all stranded on the wrong side of the board.
4.♖b8† ♔f7 5.♖b7† repeats.

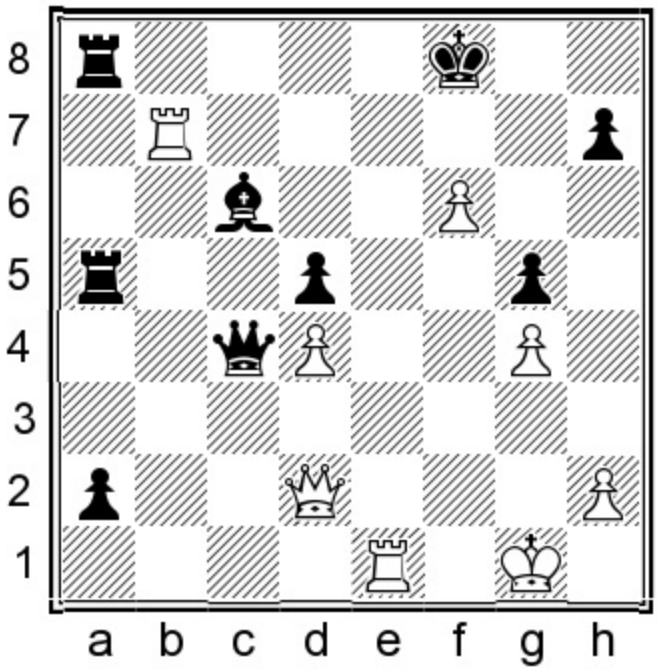
4...g5!

A tricky defence.

4...♗xb7 5.♕h6† ♔f7 6.♕g7#

4...♔g8 5.f7† ♔g7 6.f8=♕† ♔xf8 7.♕f4† with mate to follow.

4...♕xd4† 5.♕xd4 a1=♕ 6.♕b4† ♔g8 7.f7† also mates.

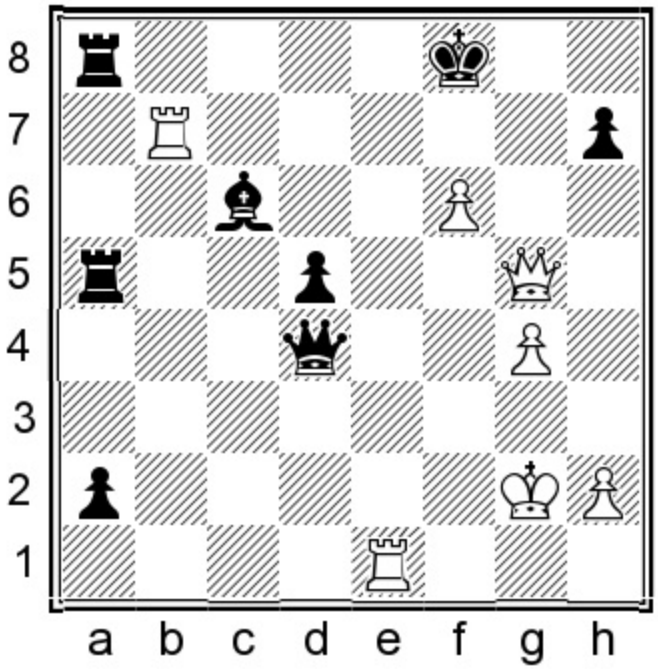


5.♕e3!

Another creeping move with the queen, creating a new threat from a different direction.

After 5.♕xg5?? mate on g7 seems inevitable, but a dastardly last-gasp reversal awaits: 5...♕xd4†

6.♔g2



6...♕b2†!! 7.♖xb2 (7.♔g3 ♖a3† mates) 7...d4† Followed by removing the white queen, leaving Black easily winning on material.

5...♖e8

Now White has a couple of winning options.

6.♖b8!

6.♖e7

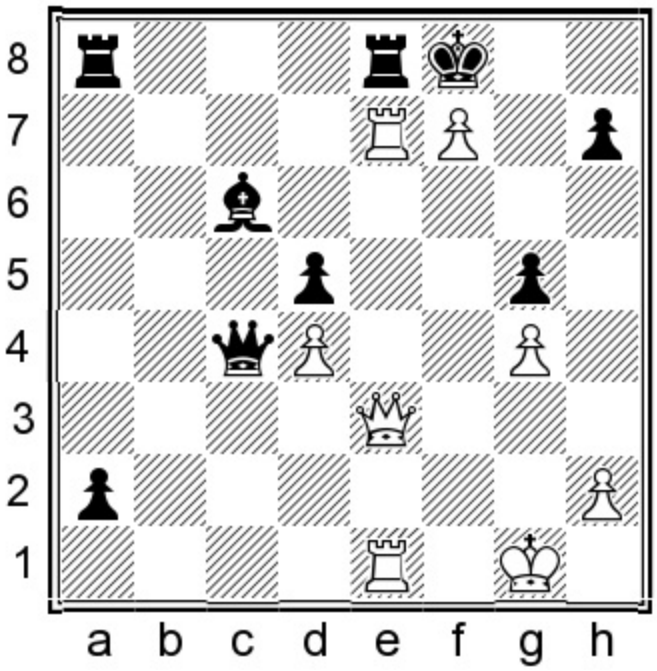
This also works, but is considerably more complicated.

6...♖aa8

6...♖ea8 7.♖f7† ♔xf7 8.♕e7† ♔g6 9.♕g7#

7.f7

A rather unusual position: White seems pretty determined to take control of the e-file!



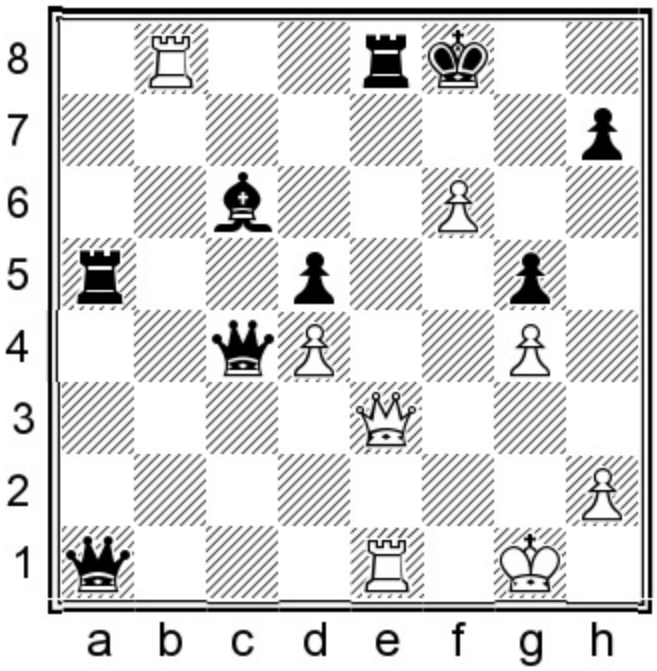
7...♖eb8

7...♕xd4 8.fxe8=♕† is all over.

8.♕e5 ♕xd4† 9.♕xd4 a1=♕ 10.♖xa1 ♖xa1† 11.♕xa1 ♔xe7 12.♕e5†+–

6...a1=♕

6...♖xb8 gets mated in exactly the same way.



7.♕e7† ♔g8 8.♕g7#

Scoring for Puzzle 18

Best move	Score	Evaluation
1.♘xe6	**10**	**+3**
1.♖b7†	2	0
1.♖b4	1	–3
1.Others	1	–3

Bonus points for correct evaluation

Between +0.9 and +1.39	1 point
Between +1.4 and +2.49	2 points
More than +2.5	**3 points**
Any other evaluation gets	0 points

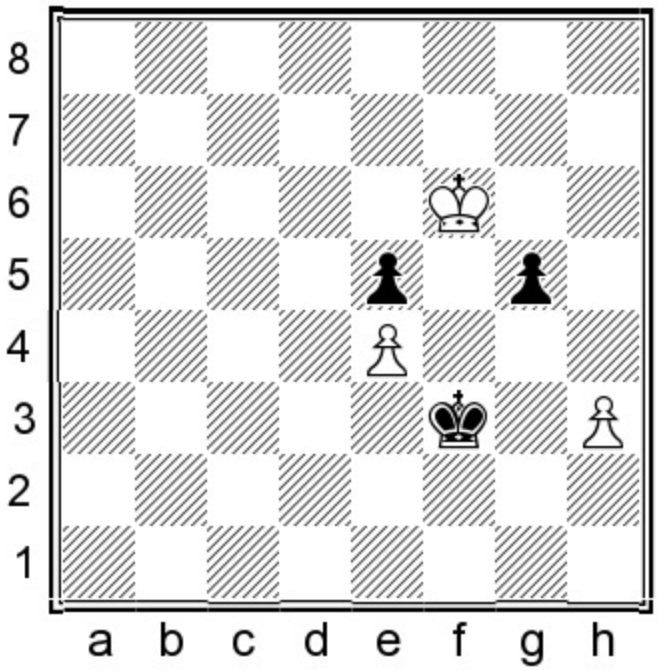
Puzzle Commentary by Phil

I recall making a note of this position when looking at a game between two top chess engines, as I was captivated by the beautiful, unexpectedly crushing move White has available. Unfortunately I did not write down the details of the engines involved. Even if you see the opening move, it is extremely difficult to see all the details of the exact winning sequence.

Adams Insight

This is a mind-bendingly complicated position, but one key factor is that Black's pieces are on the wrong flank to aid the king, only influencing the queenside here. The solution is on an extremely high level, beginning with a difficult move in 1.♘xe6!. The line that leads to a win after 1...♔xe6, with the 'quiet' moves 4.♕d2! and 5.♕e3!, is strikingly beautiful. It is hard to conceive of the initial winning move in such a sharp position, where you naturally look for more forcing ideas, and it didn't occur to me at all. The fact that the knight defends d4 from e6 is as important as the attacking possibilities created by the move.

Puzzle 19



Black to play – Level 3

Show/Hide Solution

Puzzle 19 – How Good Is Your Endgame?

Fermin Rodriguez
Elo 1544

00:15 This is a hard endgame. I have to play 1...♔f4 to defend my pawns.
01:30 Yes, if I play 1...♔f4, he cannot take any of my pawns.
04:00 Now I have to see if I have a winning move. I am sure a GM can find a better move that wins. After 1...♔f4 White has to play 2.♔g6 and now I think I have nothing better than 2...♔xe4 3.♔xg5 ♔f3 and start pushing my e-pawn forward.
05:30 Let's see: We both queen. Maybe there is a trick check. Queen endgames are very tricky. But I don't think so.
08:00 After we both queen I think it is a draw.
09:00 Can I take on e4 immediately? 1...♔xe4 2.♔xg5 ♔f3 Now I queen on e1, and he queens on h8. But there are no winning checks.
09:30 I play **1...♔xe4**. I can't see how to win.

Evaluation: 0.0

Philip Hurtado
Elo 1924

00:50 I can take, 1...♔xe4, and queen in six moves. White will take on g5 and also queen.
01:30 1...♔f4 doesn't help. White can simply play 2.♔g6 and we are in the same situation.
03:30 I have to play **1...♔xe4** and take a draw.

Evaluation: 0.0

Andrew McCumiskey
Elo 2017

00:15 Dead even on pieces. This is an odd position, with both kings on the opposite side of the board. I can go and take his h-pawn.
00:45 My candidate moves so far are 1...♔g3, 1...♔xe4, 1...g4.
01:30 1...♔xe4 and it's a race. I'd queen first, but it is fairly drawn.
01:45 If 1...♔g3 2.♔xg5 and I get nothing.
02:30 I could play 1...♔f4. How does that help me? 2.♔g6 is forced. 2...♔xe4 3.♔xg5 and we are at the same place.
03:20 Oh! 1...♔f4 2.♔g6 g4! and if 3.hxg4 ♔xg4 4.♔f6 ♔f4 and I take his pawn and win.

1...♔f4

Evaluation: Black wins.

Michael Adams
Elo 2701

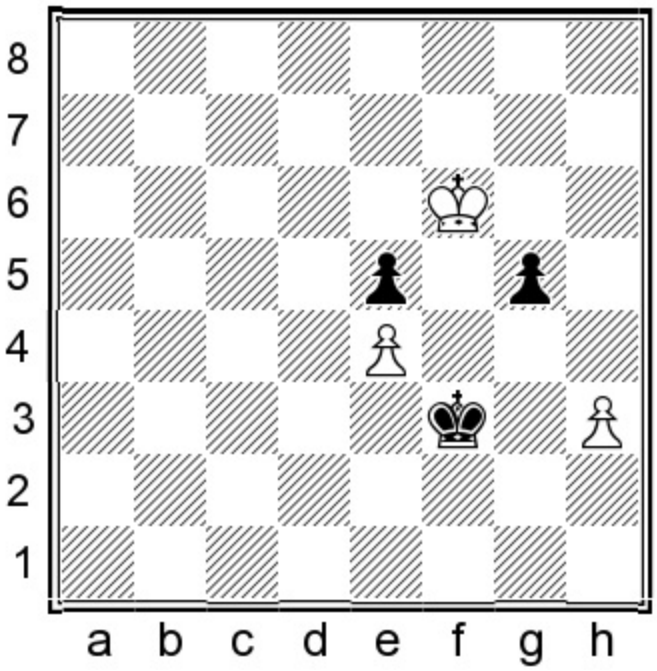
00:09 I think 1...♔f4 looks like the correct move. I can't see a good reply, as 2.♔e6 ♔xe4 wins, and if 2.♔g6 g4, and if 3.h4 I queen with check.
00:35 1...♔f4 2.♔g6 g4 3.hxg4 ♔xg4 wins.
01:10 Don't see anything too complicated.
1...♔f4 is a simple win.

Evaluation: Black wins.

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



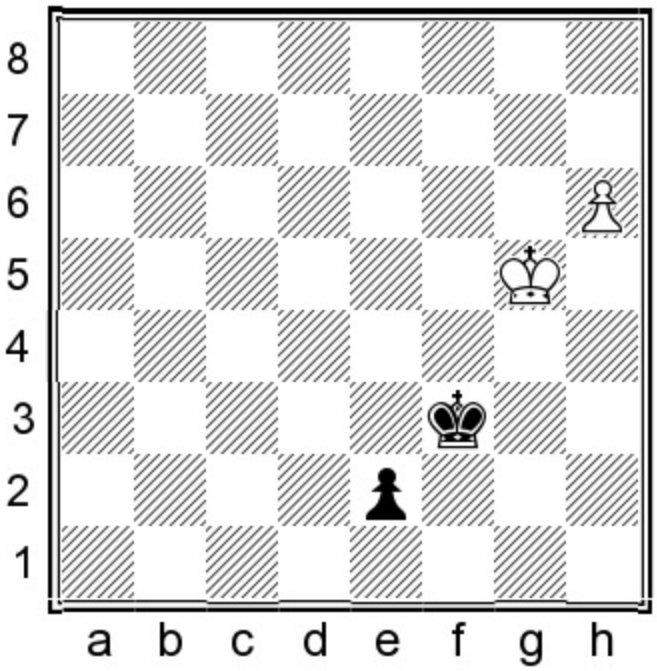
A simple endgame, where knowledge of the two themes of opposition and zugzwang help to reveal the solution.

1...♔f4!

Selling the white king a dummy: once he is forced to commit, it will be easy to clean up the pawns. In such a simplified position, better king activity is decisive – Black will simply win a pawn and the game. This move begins by protecting both black pawns, waiting for the best moment to begin capturing White's foot soldiers.

1...♔g3?? allows the white king to dominate: 2.♔xg5 ♔xh3 3.♔f5+–

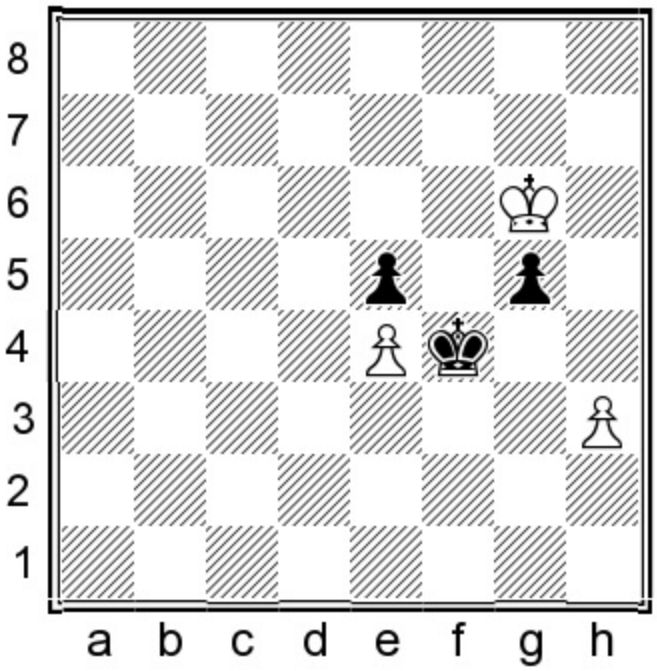
1...♔xe4? is the move Phil's opponent played in the blitz game. This spoils the win, as now both sides get a new queen. 2.♔xg5 ♔f3 The black king has to lose time to get out of the way of the e-pawn. 3.h4 e4 4.h5 e3 5.h6 e2



6.h7 e1=♕ 7.h8=♕ ♕g1† 8.♔h6 With an easy draw. (8.♔f6?? loses to 8...♕a1†; 8.♔f5, on the other hand, would be an odd choice but still draws after: 8...♕g4† 9.♔e5 ♕e4† 10.♔d6=)

2.♔g6

2.♔e6 allows 2...♔xe4 3.♔f6 ♔f4 and the e-pawn advances.



2...g4!

Now that White's king is no longer within reach of the pawn on e5, Black can use the superior king position to eliminate the kingside pawns before returning to pick up the remaining one. This seemed to be a surprisingly hard move for some players to see. Perhaps they rejected this as they imagined White's king was still on f6 here, as in the starting position.

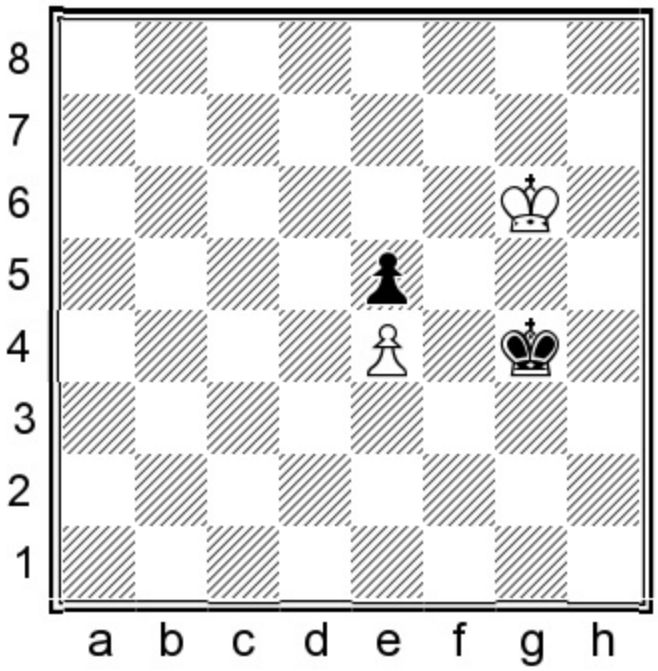
2...♔xe4? 3.♔xg5 transposes to the drawing line above.

3.hxg4

3.h4 g3 Now White's king is badly placed as Black will promote with check – and White's pawn is behind in the race in any case. 4.h5 g2 5.h6 g1=♕† Winning easily.

3...♔xg4

White's king needs to get in front of Black's pawn to influence proceedings, but is nowhere near doing so.



4.♔f6 ♔f4–+

Black's better placed king will pick off the enemy pawn and shepherd home his own.

Scoring for Puzzle 19

Best move	Score	Evaluation
1...♔f4	**10**	**–3**
1...♔xe4	1	0
1...Others	0	+3

Bonus points for correct evaluation

Lower than –2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Many weak players will struggle with this position. Even strong club players take a few minutes to spot the correct move. Grandmasters' endgame technique, however, is so good that they spot the move in literally seconds.

When I sent this position to Julio Granda via WhatsApp, as soon as he opened the message he said "Rey f4, tomando la oposición gana" which translates as: "King f4, taking the opposition wins". He did not even bother analysing 1...♔xe4. Michael also chose 1...♔f4 within moments.

I failed to find the correct move twice; once over the board during a blitz game, and for a second time when I looked at the position post mortem, with more time to consider it.

Adams Insight

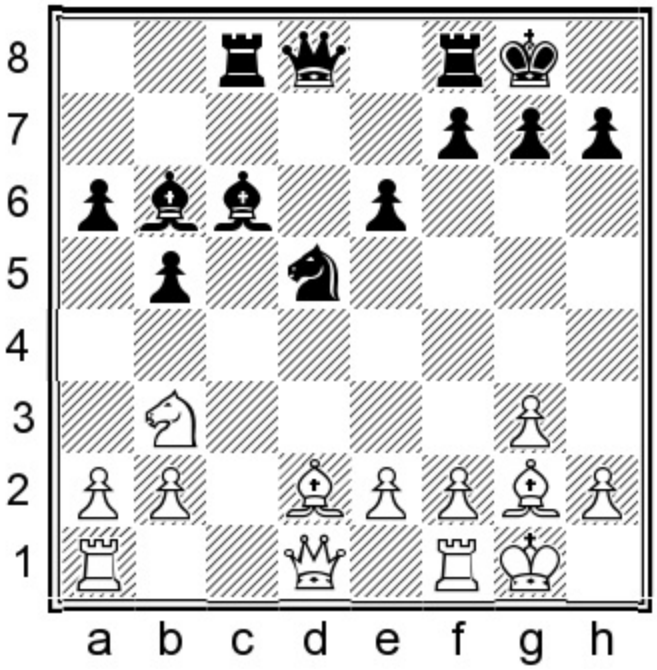
I was surprised at how difficult this was to solve for some experienced players. For GMs this was just second nature, and almost automatic.

Two players start on the right track by analysing 1...♔f4 2.♔g6. Now the winning 2...g4 seems to me not that complicated a move to find, as there are so few possible ways to continue. Yet Phil says, "1...♔f4 doesn't help. White can simply play 2.♔g6 and we are in the same situation." Fermin makes similar comments, although he senses there is a win available, but then doesn't listen to his intuition.

However, the key detail is that 2...g4 now works, as White's king is no longer in contact with e5. It's important to understand that the black king will have time to return to pick off the e-pawn which White can't defend due to Black's superior king position if White plays 3.hxg4.

I thought the reason this was overlooked might be because they visualized the white king being still on f6, attacking the central pawn on e5, as in the starting position. However, Phil was sceptical about this explanation when I suggested it. He said he found this difficult because the kings are not situated in their own half of the board as is usual, which disorientated him. This was also mentioned by Andrew McCumiskey, although in his case it didn't stop him solving the position correctly.

Puzzle 20



Black to play – Level 10

Show/Hide Solution

Puzzle 20 – A Chance to feel like a Super-GM

Jorge Granell
Elo 1673

01:45 My candidate move is 1...♕f6. I like ...♕f6.
07:00 1...f5 also looks good, with the idea of 2...f4 and opening up lines for my rook.
08:15 I play **1...f5**.

Evaluation: –0.60

Philip Hurtado
Elo 1924

00:50 My first impression is that I should get my queen out of the way with ...♕e7 to allow my f-rook to come to d8.
01:40 I suppose I have to be careful that White doesn't exchange my best bishop with 2.♗a5.
01:55 That would leave my black squares, c5 in particular, very weak.
02:20 So with that logic, maybe a move like ...a5 is in order. 1...a5 2.♖c1
03:00 A move like 1...♕f6 also feels good. But White has 2.e4 and ♗c3. So maybe 1...b4 is a move.
03:30 Although 1...b4 2.e4 might lose me the pawn.
04:30 Another idea is 1...♘f6, trying to swap bishops and fighting for the c-file.
05:50 The idea of 1...a5 2.e4 ♘b4!? might not be that stupid. If he takes 3.♗xb4, I have an open a-file, and solved my c5-weakness problem.
07:15 White is threatening 2.e4 gaining space.
08:50 Sometimes there are tactics on e3 or f2 in these kinds of positions. But I don't see any at the moment.
10:00 I have to solve the 2.e4 problem, and 1...a5 seems to help. 1...a5 2.e4 ♘b4 3.♗xb4 axb4 and I can play ...♕e7 and play with the rooks.
10:10 Because of the threat of ...a4, White has to do something dramatic after 1...a5.
10:20 And if he plays 2.e3 to support the knight, then after 2...a4 3.♘d4 I can think of taking it and playing against his isolated pawn.
12:00 After 1...a5 White's best move is 2.♖c1.
14:15 1...a5 2.♖c1 a4 3.♘c5 ♕e7 4.♕c2 and now try and move my knight somewhere clever to unleash the discovered attack on c5.
22:00 1...a5 2.♖c1 a4 3.♘c5 ♕e7 4.♕c2 ♘c3!! 5.♕xc3 ♗xg2 6.♔g2 ♖xc5
23:15 So, probably then, the best line is 1...a5! 2.e4 ♘b4 and Black has a comfortable game.
I would play **1...a5**.

Evaluation: –0.8

Akshaya Kalaiyalahan
Elo 2149

01:00 I am looking at 1...♘f6, or 1...♕d7. Either to exchange the bishop on g2, or ...♕d7 to build up pressure on the d file.
05:15 I am also looking at playing 1...a5 with the idea of pushing the knight back.
08:00 I have decided to play 1...a5.
08:10 I am struggling to see a good move for White after 1...a5. Maybe 2.♘c1 with the idea of

coming back out with ♘d3.

1...a5

Evaluation: –0.50

Julio Granda
Elo 2630

00:15 The first idea, typical in these positions, when there is a knight on b3 or g3, is to play 1...a5 kicking the knight away, and asking it where is it going.
00:45 Now we have to look at concrete variations. 1...a5 2.♖c1 a4 3.♘c5
02:00 However, Black can now play 3...♕e7 and Black is quite comfortable here.
03:20 What other ideas can we have here? I can't think of many others.
03:30 1...a5 is the move.

Evaluation: –0.50

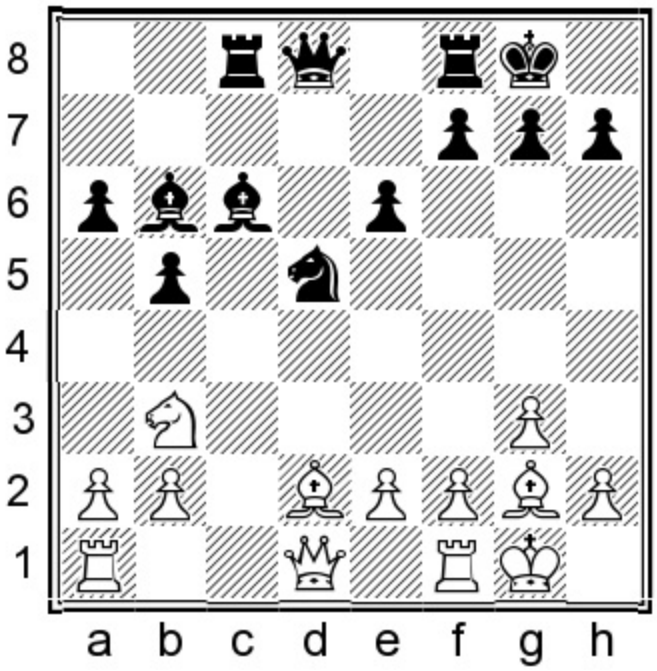
Deeper Analysis by Michael Adams

Bogdan-Daniel Deac – Michael Adams

Isle of Man 2018

1.d4 ♘f6 2.c4 e6 3.g3 d5 4.♗g2 dxc4 5.♕a4† ♘bd7 6.♕xc4 c5 7.♘f3 a6 8.♕c2 b5 9.♘e5 ♘d5 10.♘xd7 ♗xd7 11.dxc5 ♖c8 12.0-0 ♗xc5 13.♕d1 0-0 14.♘d2 ♗c6 15.♘b3 ♗b6 16.♗d2

Black has a small lead in development, but my main plus is the extra space on the queenside. So logically I should look to intensify play there, and take even more territory on that flank. It's an advantage of my unusually placed bishop on b6 that the white knight on b3 finds itself dominated and does not have many squares available.



16...a5!

This advance gets ready to kick the white knight with ...a4, and gives the alternative option to instead roll forward with ...b4, possibly followed by ...♗b5. In addition White's bishop is deprived of the b4-square, closing down its scope on the queenside, leaving it fairly prospectless on d2.

The premature 16...b4? 17.e4 drops a pawn.

16...♘f6?! has the sensible idea of swapping light-squared bishops, but is mistaken, as it allows White's passive minor pieces to spring into action with: 17.♗b4! ♖e8 18.♕xd8 ♖exd8 19.♖fc1 Black is struggling to equalize.

I didn't like 16...♕d7 or 16...♕e7, both of which can be met by 17.♗a5!, when retreating the bishop to a7 is not so desirable as I can't then put a rook on d8. However, after a bishop swap, the position is drifting towards equality.

16...♕f6 can be well met by 17.e4 ♘e7 18.♗c3 when Black's pieces are being kicked around.

16...h6 lacks urgency and gives White time for the useful 17.♖c1.

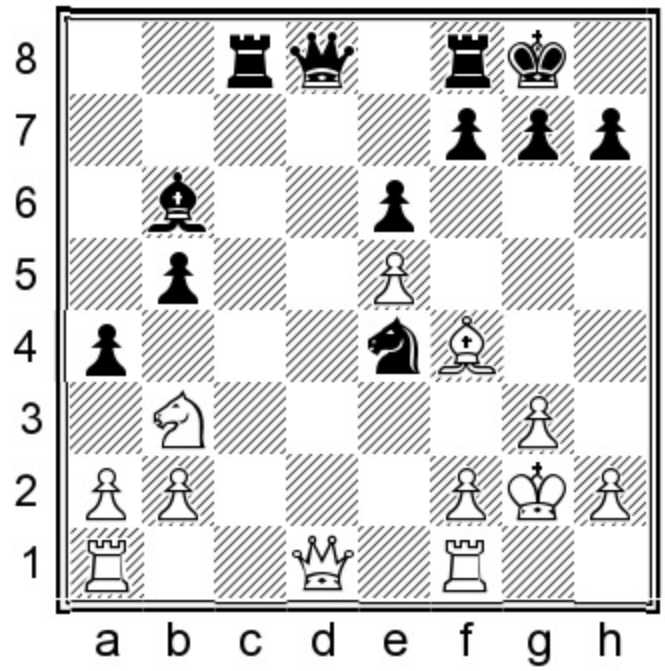
16...f5 is a typical idea to secure the knight on d5, but it creates some weak squares. Another important point is that any e2-e4 ideas are much less tempting than normal due to the unusually active placement of the bishop on b6, so I didn't feel it was at all necessary to take measures against that move. Play could continue 17.♖c1 ♕f6 18.♘c5 ♗xc5 19.♖xc5 ♕xb2 20.♕c1 ♕xc1 21.♖fxc1 when White has reasonable compensation due to the weakened dark squares.

17.♘c1

This is a positionally sound idea – White's knight is often well located on d3 in Catalan structures, secured by the anchor pawn on e2. However, the drawback is that this is a bit time-consuming, enabling me to increase my slight lead in development.

17.e3 doesn't solve White's problems: 17...a4 18.♘d4 ♗xd4 19.exd4 ♕b6∓

17.e4? looks tempting, but White's position quickly collapses after this attempted aggression, which his piece placement can't justify. 17...♘f6 18.e5 (18.♕e2 a4 19.♘c1 ♗xe4–+) 18...♗xg2 19.♔xg2 ♘e4 20.♗f4 a4



21.♘d2 ♘xf2 22.♖xf2 ♗xf2 23.♔xf2 ♕d3 Threatening ...♖c2. 24.♖c1 ♕d4† 25.♔g2 ♕xb2–+

17.♖c1

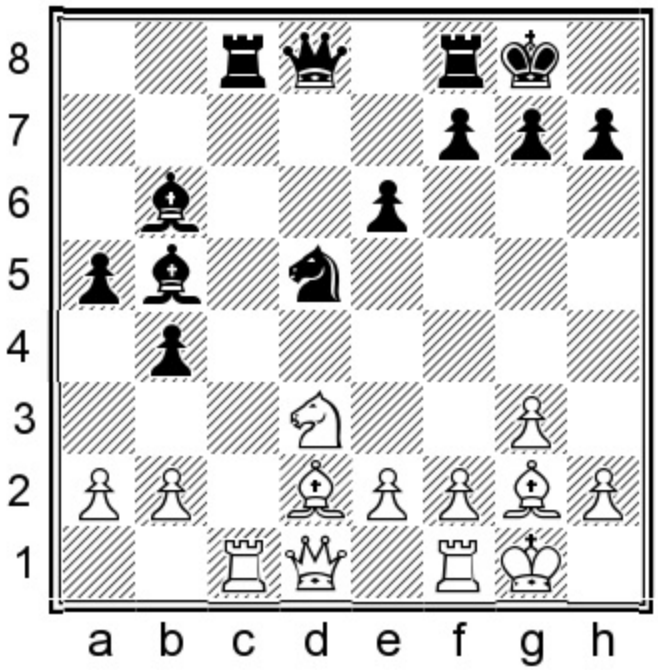
This is a more natural move. Black's best response is:

17...b4!

Taking more space and reducing the scope of White's bishop, whilst opening up the b5- and a4-squares for mine.

17...a4 drives the knight where it wants to go, and the b4-square could come in handy for a white knight or bishop later on. 18.♘c5 Play could continue with either 18...♗a8 19.♘d3 ♖xc1 20.♕xc1 ♘f6, or 18...♕e7 19.♘d3 (after 19.♕c2? Phil was excited about 19...♘c3 but this doesn't make sense when there are easy options such as 19...♗a8–+ with a decisive pin) 19...♖fd8 when Black is a tad more comfortable but White is much closer to equality than in the line below.

18.♘c5 ♗b5 19.♘d3

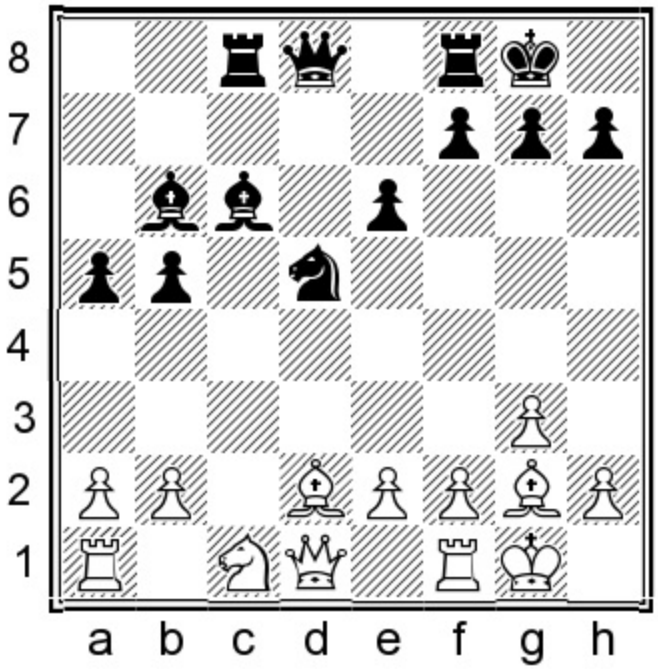


19...♖xc1

19...♕d6!? is also good.

20.♕xc1 ♕d7∓

Black controls more space and has much more active pieces.



17...♘e7!

A good response. Black uses the time White is spending to redeploy the knight to the solid outpost on d3 to swap the light-squared bishops, resulting in White's king feeling uncomfortable. This idea is only possible now that the b4-square has been taken under control. This also gives my pieces some new opportunities: the knight might head towards d4 via c6 or f5, and the d5-square is now available for my queen, where it might handily arrive with check.

18.♗f4

Black is also clearly better after 18.♘d3 ♗xg2 19.♔xg2 ♘f5, or 18.♗xc6 ♘xc6 19.♘d3 ♕d5 when the knight can move to d4 at a convenient moment.

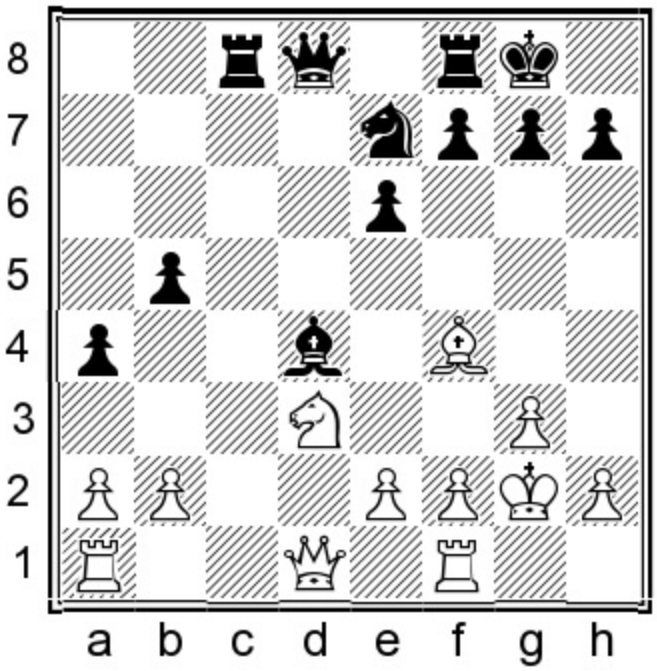
18...♗xg2 19.♔xg2 ♗d4

19...♘d5!? 20.♘d3 ♖c4∓ was a tempting alternative.

20.♘d3 a4

20...♕d5†!? was worth considering as well.

In any case, Black has a clear advantage and I went on to win a game I was quite pleased with.

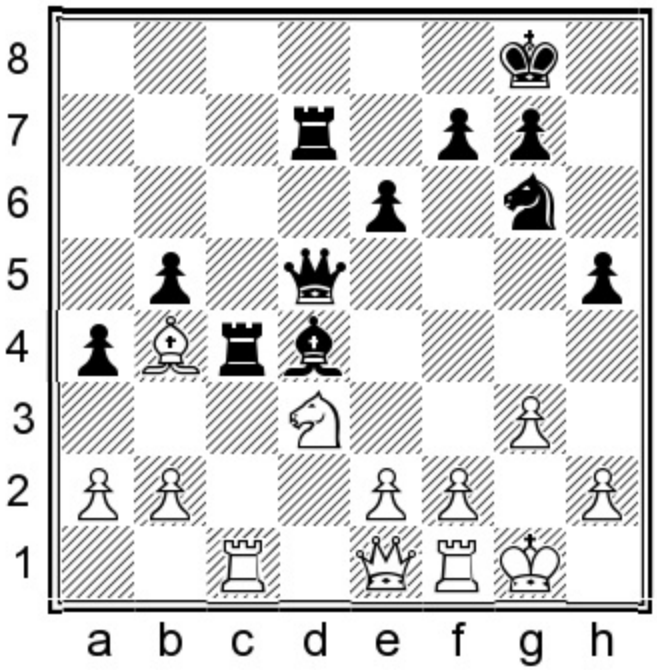


21.♔g1 ♘g6 22.♗d2 ♕d5 23.♗b4 ♖fd8 24.♗a5 ♖d7 25.♗b4 h5 26.♖c1 ♖c4

26...♖xc1 27.♕xc1 h4 was a good alternative, with a strong attack.

27.♕e1?

27.b3 was essential, although 27...♖xc1 28.♕xc1 h4 is still excellent for Black.



27...h4

Now White is unable to avoid serious concessions, and the game only lasted nine more moves.

28.e4 ♕g5 29.♔g2 hxg3 30.fxg3 ♗e3 31.♖xc4 bxc4 32.♘f2 ♘f4† 33.♔h1 ♘d3 34.♘xd3 cxd3 35.♕d1 d2 36.♗c3 ♕g6

0–1

Scoring for Puzzle 20

Best move	Score	Evaluation
1...a5	**10**	**–0.75**
1...♕c7	3	–0.3
1...♕e7	3	–0.3
1...♕d7	3	–0.3
1...♘e7	3	–0.3
1...f5	3	–0.3
1...♗b7	3	–0.3
1...♗a8	3	–0.3
1...h6	3	–0.2
1...Others	1	

Bonus points for correct evaluation

Between –0.10 and –0.29	1 point
Between –0.30 and –0.59	2 points
Between –0.6 and –0.89	**3 points**
Between –0.9 and –1.39	2 points
Between –1.4 and –2.49	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I have shown this puzzle to quite a few players. Most players above 1900 are able to find the best move and give a reasonably good evaluation of the position. On finding out it was the move Mickey played in his game against chess prodigy Bogdan-Daniel Deac, we all felt like Super-GMs when we found the right move!

Adams Insight

16...a5 is a strong multipurpose move, both offensively and defensively. It limits White's

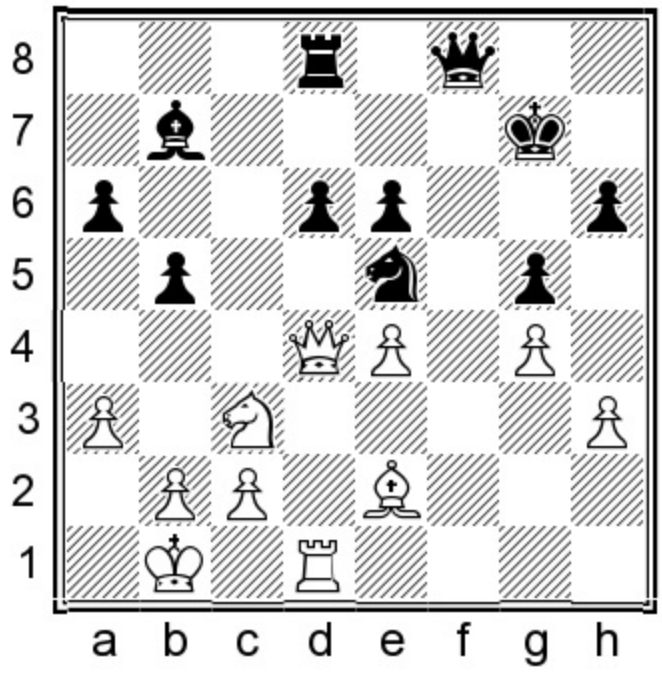
possibilities, particularly for the dark-squared bishop, and creates new options for me on the queenside. Black intends a further pawn advance, with either ...a5-a4, harassing the knight on b3, or ...b5-b4, controlling some dark squares and vacating the b5-square for the bishop. It also prevents White from swapping or improving his awkward minor pieces.

The natural 16...♕e7 is an instructive inaccuracy which allows 17.♗a5, when White resolves his jumbled minor piece placement in one easy step.

Positions 21-24

How to Attack?

Puzzle 21



White to play – Level 6

Show/Hide Solution

Puzzle 21 – Fighting Prejudice

Penny Wood
Elo 1443

04:30 1.♖f1 screams out to be played.
1.♖f1

Evaluation: Probably White is better.

Fermin Rodriguez
Elo 1544

00:30 What opening did this come from? A Sicilian? There are no magical tricks here.
00:45 The move that sticks out like a sore thumb is 1.♖f1.
This must be the move.
"Am I correct?"
"Fermin, I can't say anything. You have to play the move that you would play if you were in a real game."
01:00 "Okay, let me think a bit more."
02:00 My bishop on e2 is a stump. Depending on who am I playing, I might consider sacrificing it on b5. 1.♗xb5
02:30 Maybe the sacrifice is not that good.
03:00 1.♖f1 can't be bad.
03:30 I play **1.♖f1** with a small advantage to White.

Evaluation: +0.25

Tony Sadler
Elo 1893

01:00 1.♕b6 or 1.♕a7 look good.
02:00 I suppose after 1.♕a7 Black can play 1...♖d7.
02:30 1.♖f1
04:00 After 1.♖f1 I have a bit of play, but I think Black is slightly better. The other move I am considering is 1.♗xb5.
05:00 Actually, I think I'd go for 1.♗xb5 axb5 2.♘xb5 putting pressure on d6.
05:30 After 1.♗xb5 White has reasonable chances. And he gets enough material for the piece.
05:35 I play **1.♗xb5**.

Evaluation: +1.0

Philip Hurtado
Elo 1924

00:15 Material is equal, but White seems much better placed. The queen on d4 is excellent. Also Black's king is a bit exposed. I think White must be better here. There must be some sort of attack

looming.
00:30 Many candidate moves come to mind, e.g. 1.h4, 1.♖h1.
00:35 Even 1.♕a7 could be strong.
00:45 I am sure it is White to play and win.
02:45 I am also considering positional threats such as 1.a4 with the idea of getting my bishop onto c4 attacking the e6-pawn.
04:45 After 1.a4 bxa4 White has 2.♘xa4 with the threat of 3.♘c5, hitting e6. This feels so good!
05:45 After 1.a4 bxa4 2.♘xa4, the threat of ♘c5 is massive. I can't see at the moment how Black can stop it. This looks very promising.
Maybe after 1.a4 bxa4 2.♘xa4, Black can play 2...♕f6.
09:30 But even still, 3.♘c5 is very strong. I can play 4.♘d3, or whatever.
10:35 1.a4 bxa4 2.♘xa4 Now maybe 2...♔g8 to get out of the pin.
11:30 But still, 3.♘c5 ♗c8 4.♘xa6.
11:30 I feel I am starting to play like Adams now. I am sure this is the right move.
12:00 Yeah, 1.a4! just feels so correct. Black is forced to take: 1...bxa4 2.♘xa4 With a clear advantage to White.

1.a4

Evaluation: +1.4

Juan Reyes
Elo 2451

00:45 I don't like White's position. Black's knight is excellently placed. White's knight doesn't have an active role. Are you sure Adams was White here? Let me look further. 1.♕a7 and ♕b6 could be possible moves.
01:50 Well, at the moment I am doing well with 1.a4 bxa4 2.♗xa6 ♗xa6 3.♕a7† and I am getting back the piece.
03:00 If 1.♕a7 ♖d7. So 1.a4!.
03:45 1.a4 bxa4 (only move) 2.♗xa6 ♗xa6 and then the a4-pawn falls, and I am left with a passed b-pawn.
05:30 I like 1.a4. I win a pawn. But Black's knight is still well positioned.

1.a4

Evaluation: +1.5

Julio Granda
Elo 2630

00:20 This position probably stems for a Najdorf Sicilian.

00:40 The first move that comes to mind is 1.a4.
00:45 When one doesn't have play on one side, he has to look for play on the other side. In this position White doesn't have any play neither on the kingside nor in the centre, so he has to look for something on the queenside.
01:20 With 1.a4 I am creating a weakness. Now we have to see if it works. I think it does work. 1.a4 bxa4 2.♗xa6 ♗xa6 3.♕a7†
01:55 Yes. 1.a4. I create some weaknesses and dominate new squares in Black's camp.
02:00 1.a4 has to be the move – I can't think of any other.

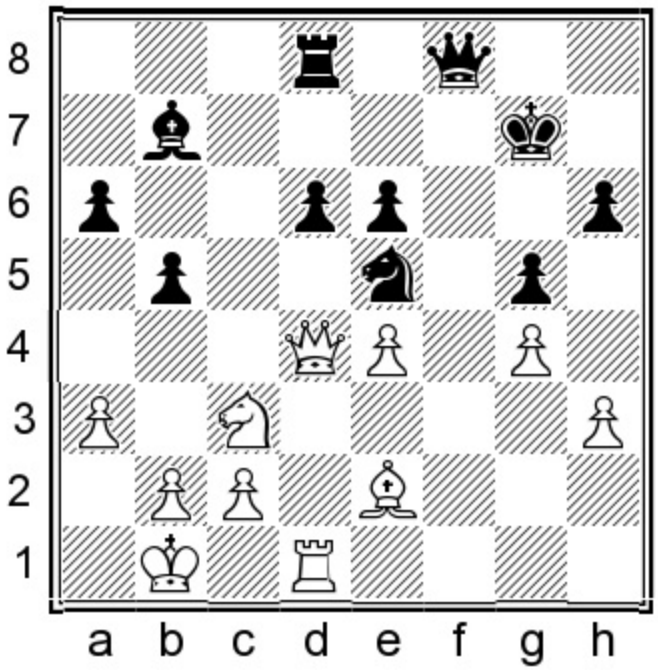
Evaluation: +0.80

Deeper Analysis by Michael Adams

Michael Adams – Mohamad Naser Al Sayed

Gibraltar 2014

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 a6 6.♗e3 ♘bd7 7.♗e2 e6 8.g4 h6 9.f4 g5 10.f5 ♘e5 11.h3 b5 12.a3 ♕e7 13.fxe6 fxe6 14.♘f3 ♘fd7 15.♘xe5 ♘xe5 16.♕d2 ♗b7 17.0-0-0 ♖d8 18.♔b1 ♗g7 19.♖hf1 ♘f7 20.♗d4 0-0 21.♗xg7 ♔xg7 22.♕d4† ♘e5 23.♖xf8 ♕xf8



There are a few useful moves here, but I felt the key factor was to open lines to bring White's passive minor pieces into the game, to exploit Black's shaky structure and windy king position.

24.a4!

White's advantage is mainly due to my much safer king, particularly when compared to Black's exposed monarch. In addition, the vulnerable pawns on d6 and e6 tie down Black's pieces. However, my minor pieces aren't currently actively placed, and the black knight on e5 is influential. This pawn nudge allows me to improve my underemployed minor pieces. It gives my bishop more scope, and a target on a6. The bishop can also later very usefully come to c4, where it will eye the weakling on e6, which is currently avoiding scrutiny. My knight can also hop around to greener pastures, whereas at the moment it has no route forward. The exchange of pawns on the queenside opens several new circuits for my knight. In the game it eventually heads to c4 to challenge Black's best piece, the knight on e5.

It is true that the game continuation slightly compromises my own king protection, and some rejected it due to this. However, my king is still so much safer than Black's that this small drawback pales in comparison to all the other positives. Black's major pieces are tied down anyway, and can't access the b-file to take advantage of the opened queenside files.

24.♗xb5? is an imaginative idea, but unfortunately it doesn't work. 24...axb5 25.♘xb5 ♕f4 26.♘xd6 ♖d7 White's pieces are pinned down the d-file, and Black's king is in no danger with little material remaining.

24.♖f1?! is a typical one-move threat which doesn't really contribute to a coherent plan. White's rook has little to do on the f-line, as all the squares there are securely covered by Black's pieces, and after 24...♕e7 Black's queen has found a better post.

24.♘a2 with the idea of ♘b4/c1-d3 has some merit, but leaves the bishop on e2 passive.

24.♖d2 doesn't achieve much or hurt much.

24.b3 is not bad, giving the king a square on b2. White doesn't need to be in any particular hurry, but this continuation is only really effective if followed by a2-a4 as in the game, and there is no reason to delay it.

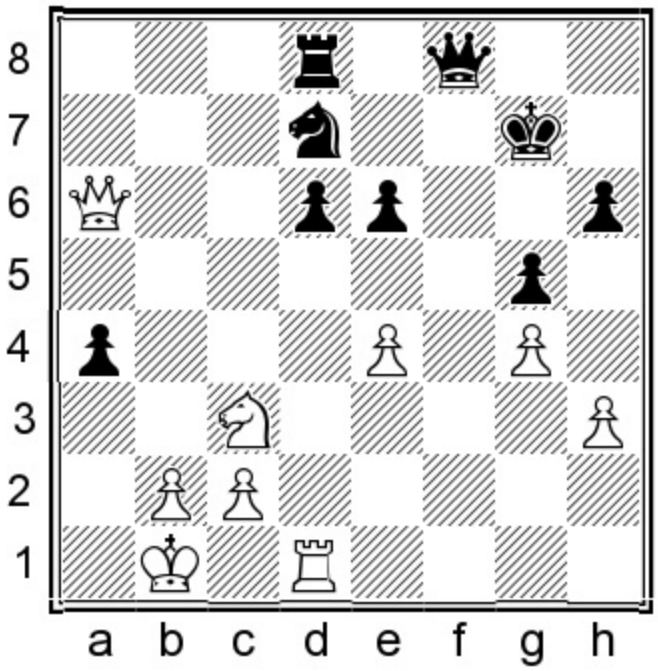
24.♕a7 leads nowhere special after 24...♖d7.

24.♕b6!?, on the other hand, is interesting if played with the idea to follow up with a2-a4 next turn. 24...♖d7 25.a4! bxa4 26.♗xa6 with an edge for White. The game continuation is slightly more accurate though: we will see how the queen still has the ability to annoy Black from d4, so White loses a little something by moving her away so soon.

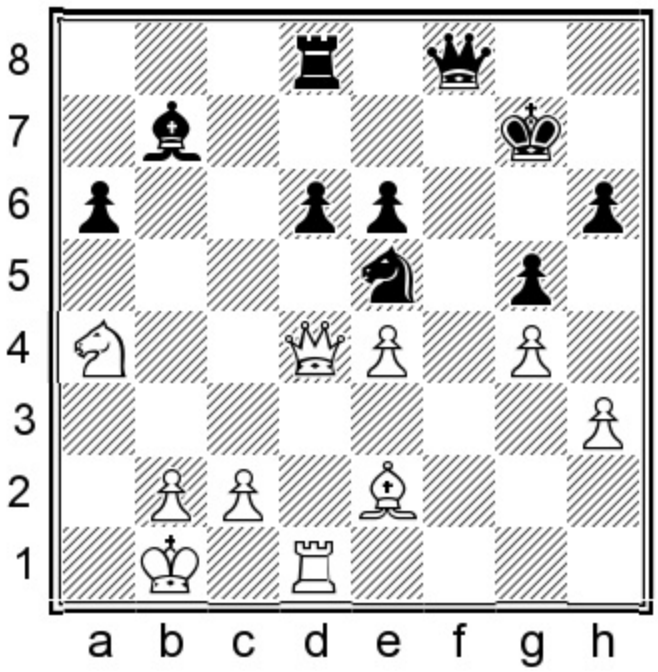
24...bxa4 25.♘xa4

Simply recapturing on a4 is simplest and best, as all Black's problems remain, and it is not easy to solve them. White, in contrast, has plenty of constructive ideas.

The significant alternative 25.♗xa6!? was mentioned by some participants – White tries to take material immediately, but it seems to me to be a bit early to cash in. 25...♗xa6 26.♕a7† ♘d7! (26...♕f7? 27.♕xa6 ♕c7 28.♘xa4±) 27.♕xa6



27...♘c5 Black's position looks shaky but is surprisingly resilient. 28.♕c4 (28.♕b5 ♔g6! 29.♘xa4 ♕f3 30.♖f1 ♕xh3 hangs on.) 28...♕f3 29.e5 ♕f4! 30.♕e2 a3! With some annoying counterplay.



25...♔g8

25...a5 26.♘c5! shows another advantage to my knight having more options.

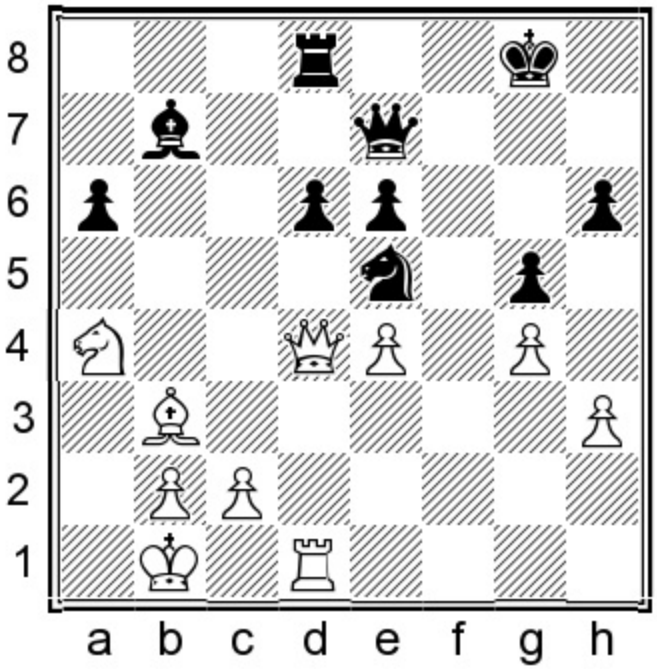
26.♘b6

I took the logical decision to try to remove the knight on e5, figuring this would destroy Black's

position. There were two simple, good alternatives – always a healthy sign.

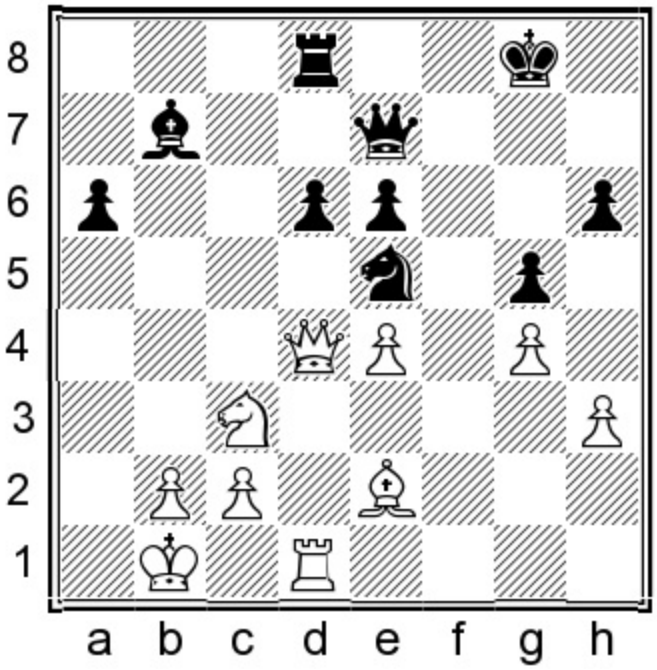
26.♘c5?? ♘c6!–+ was a dirty trick created by my opponent when unpinning the knight on e5.

26.♗c4!? was another good option created by the liquidation of the pawn on b5. 26...♕e7 (26...♘xc4 27.♕xc4 d5 28.♕c7+–) 27.♗b3



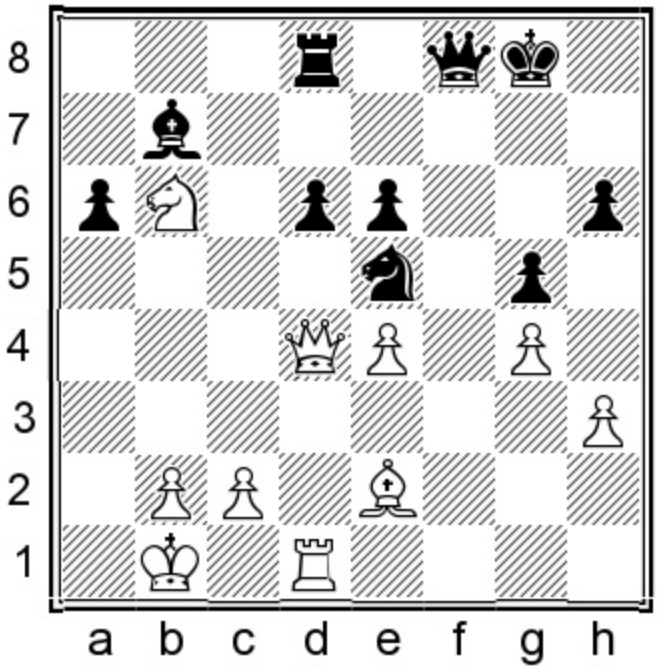
And I only need to activate my knight to leave Black in deep trouble.

26.♘c3!? Covering the e-pawn before attacking the pawns directly is also good. 26...♕e7 (26...♖d7 27.♕b6 ♕d8 28.♕b3 also leaves Black under pressure.)



27.♕b6 Threatening to snaffle the a-pawn. This line is a much superior version of 25.♗xa6, keeping

more control.



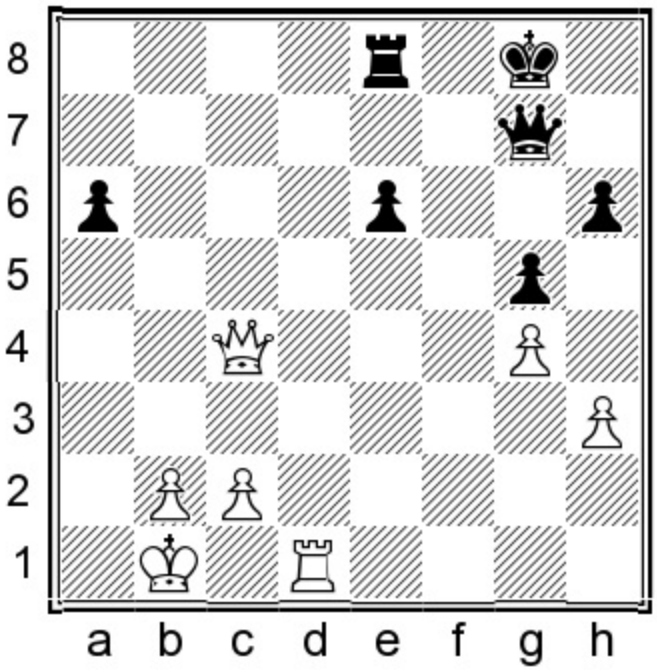
26...♕g7

26...♕f4 is well met by 27.♘c4! ♘xc4 (27...♕xe4? 28.♕xe4 ♗xe4 29.♘xe5+–) 28.♗xc4 and Black's position is too draughty, for instance: 28...♗xe4 (28...♕xe4? 29.♕f6+–) 29.♗xe6† ♔h7 30.♕a7† ♔h8 31.♕b6 ♕f6 32.♖xd6 ♖xd6 33.♕xd6+–

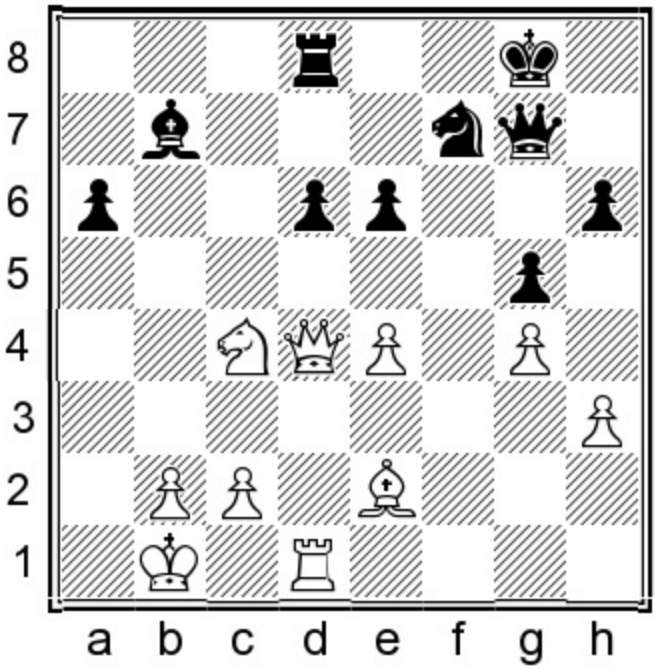
27.♘c4 ♘f7

Retreating the only well-placed piece is hardly desirable for Black, but what else could he do?

27...♘xc4 28.♕xc4 d5 29.♕c5! ♖e8 30.exd5 ♗xd5 31.♗c4 ♗xc4 32.♕xc4 leads to a triumph of White's strategy:



My two ineffectual minor pieces have been swapped, and Black's king is even more vulnerable. In addition a pawn is about to drop off: 32...a5 33.♕b5 ♖a8 34.♕c6+–



28.♕e3

28.♕b6!? ♗xe4 29.♖xd6! was also strong.

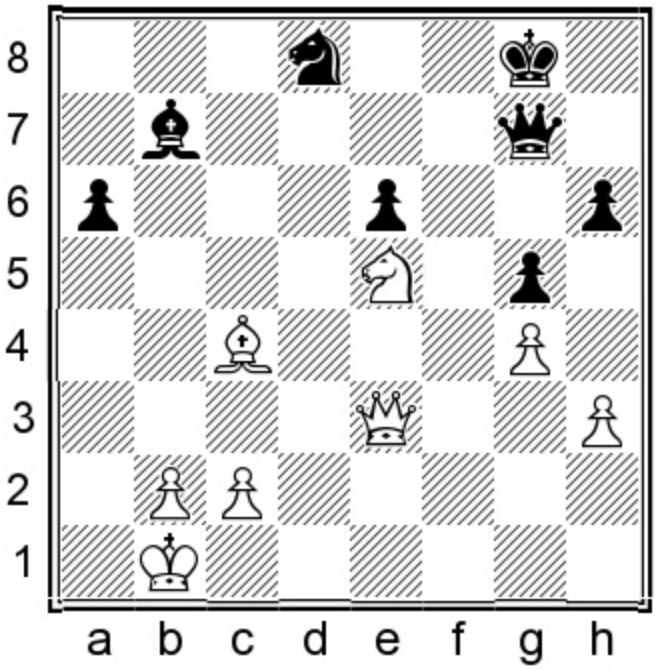
28...♗c6

28...♕f6 29.♖f1 doesn't help Black.

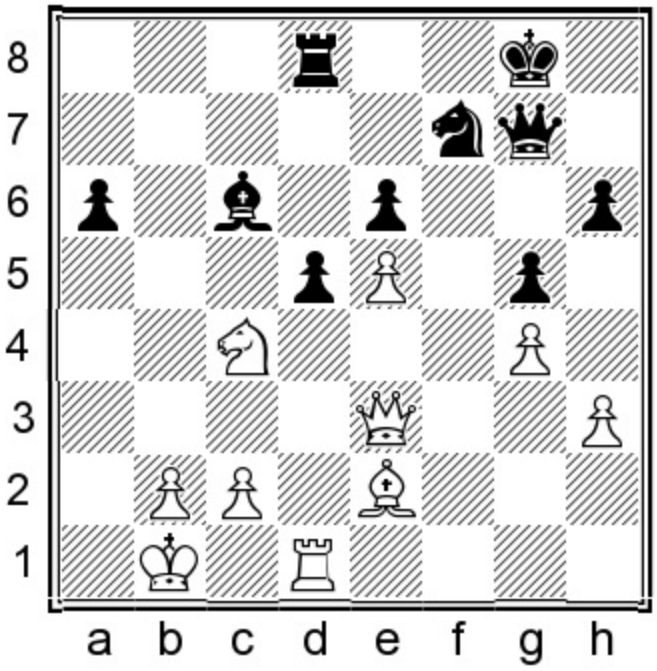
29.e5 d5

29...dxe5 30.♖xd8† ♘xd8 31.♘xe5 ♗b7 32.♗c4 reaches a diagram which is worth comparing to

the initial puzzle position:

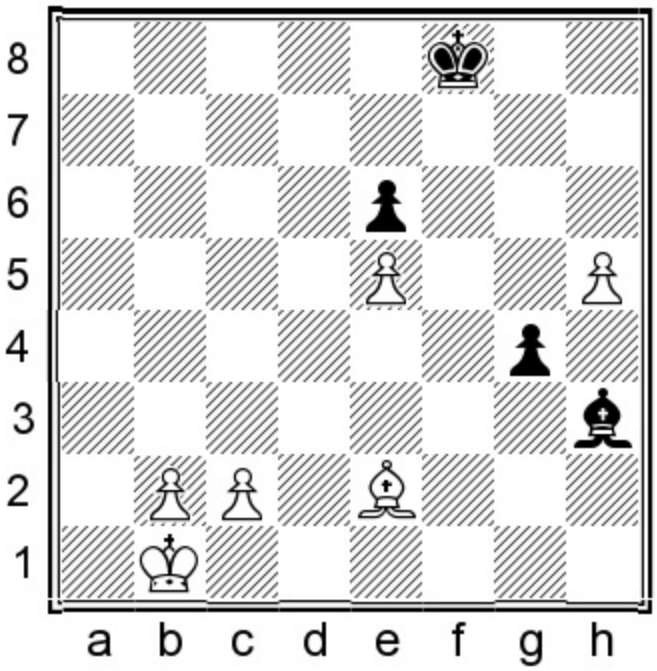


My once ineffective minor pieces have taken dominating posts over their counterparts, as they were forced to retreat when Black shunned exchanges.



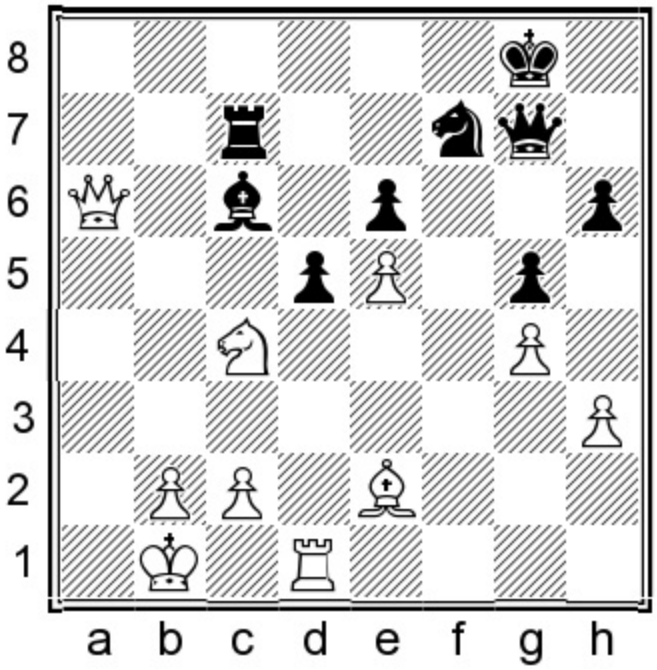
30.♕b6 ♖c8

30...dxc4 31.♖xd8† ♘xd8 32.♕xd8† ♕f8 33.♕xf8† ♔xf8 34.♗xc4 leads to a winning endgame, and it's worth including a sample line to show how this might play out. 34...♗g2 35.♗xa6 ♗xh3 36.♗e2 h5 37.gxh5 g4 I have to give up my bishop, but the pawns on both flanks will only be slowed down, not stopped.



38.b4 g3 39.♗f3 g2 40.♗xg2 ♗xg2 41.b5 ♔g7 42.♔b2 ♔h6 43.♔c3 ♔xh5 44.♔d4 ♔g4 45.♔c5 ♔f5 46.♔d6 ♗d5 47.b6 ♔e4 48.c4 White wins.

31.♕xa6 ♖c7

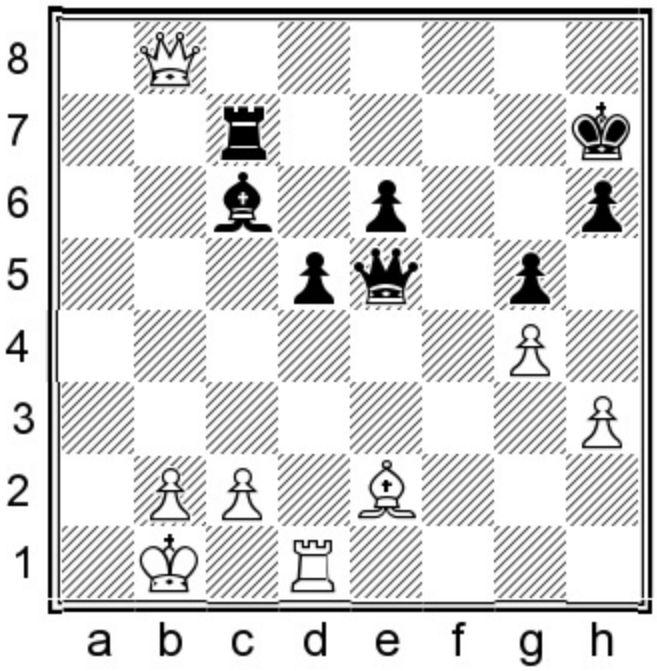


32.♕b6 ♘xe5

32...♖c8 33.♘d6 wins.

33.♕b8† ♔h7 34.♘xe5 ♕xe5

The removal of Black's knight signals the end of the game, as the rook on c7 is horribly pinned.



35.♖f1

Due to the hopelessness of variations such a35...♕d6 36.♖f7†, 35...♔g7 36.♕f8† ♔h7 37.♗d3† and 35...♗e8 36.♗d3† ♗g6 37.♖f7† ♖xf7 38.♕xe5, Black resigned.

1–0

Scoring for Puzzle 21

Best move	Score	Evaluation
1.a4	**10**	**+1.5**
1.b3	8	+1.2
1.♖d2	4	+1
1.♕b6	4	+0.8
1.♕a7	4	+0.8
1.♘a2	4	+0.8

Bonus points for correct evaluation

Between +0.3 and +0.59	1 point
Between +0.6 and +0.89	2 points
Between +0.9 and +2.49	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I think this is a great position to reveal the differences in chess understanding between players rated below 1800 and stronger ones. Weaker players are invariably drawn to simple, one-move attacking manoeuvres. They will choose between 1.♖f1, 1.♕b6 or, for the more adventurous, 1.♗xb5. None of these moves are amongst the top five computer choices.

More advanced players will swiftly reject these options, and will then switch their attention to positional and strategic considerations. The stronger the player, the faster this process is. In the case of GM Julio Granda, this procedure took him forty seconds, and he gave a lucid explanation of how he found the best move.

Another interesting point is that, of the many club players I tested this position with, several saw 1.a4 as a positionally desirable move, but rejected it immediately on the spurious grounds that it opens lines for Black to attack the white king. As with many other puzzles in the book, I have noticed how regularly club-strength players cut short variations due to wrong prejudices.

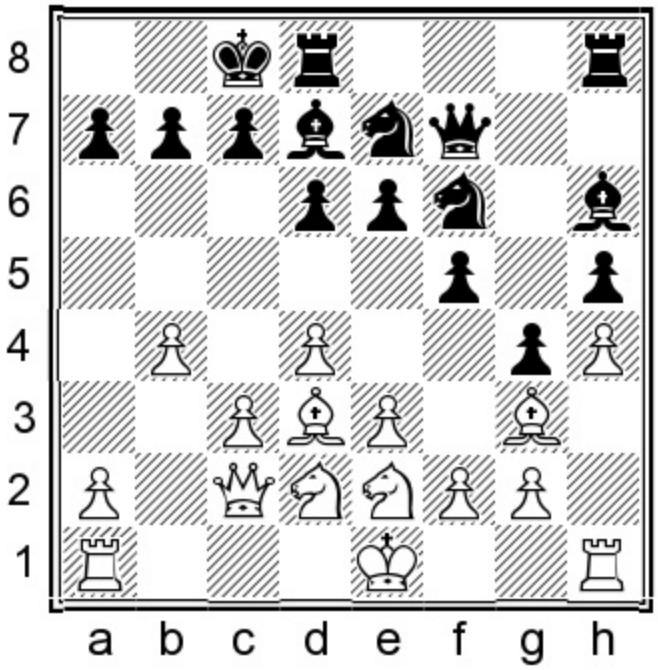
Adams Insight

This position contained a simple, but highly effective idea to activate White's passive minor pieces. Some players didn't sense the power of this plan at all, having failed to identify White's top priority when it comes to improving my position. Hence they became attracted to more complicated but much less effective ideas like 1.♗xb5, or the meaningless one-move threat 1.♖f1. Fermin and Tony both identified the inactive bishop on e2, but didn't follow that thought process through to find the correct plan to create more prospects for it.

It's worth noting how, as the game developed, it was very easy to play with White, with several good options available on many moves. Conversely, Black's defensive task was unpleasant, as my opponent scrambled to keep his weaknesses defended and barely made an active move. It wasn't hard to reel in the point with natural moves, once my minor pieces gained new perspectives.

The concern expressed by some about slightly weakening the pawn cover in front of White's king was misplaced. Throughout the game, my king remained massively more secure than my opponent's, and Black's pieces were hardly in a position to create any threats to my monarch.

Puzzle 22



White to play – Level 8

Show/Hide Solution

Puzzle 22 – Planning Ahead

Agnieszka Milewska
Elo 1677

00:39 My first thought is 1.♘c4 with the idea of capturing on d6 with my bishop and then with the knight, forking king and queen.
01:30 I am also considering 1.a4 attacking the black king.
02:00 The position is practically equal.
02:05 I still go for 1.♘c4.

Evaluation: 0.0

Andrew McCumiskey
Elo 2017

00:30 Nothing has been swapped; all pieces still on the board. The question is: Should I castle?
00:55 After castling, can he play 1...f4? Am I safe? Can I castle kingside and sleep at night?
01:30 I can attack on the queenside. I have a very nice bishop on g3, attacking his d6-pawn.
02:00 The knight can jump to c4 and threaten 2.♗xd6. Let me explore that a bit more: 1.♘c4 What can he do?
02:45 1.♘c4 and I have got all sorts of nasties coming.
03:20 Defenders have to find the perfect move every time, whereas attackers don't. It's like cricket: the bowler can make many mistakes, but as soon as the batsman makes one mistake he is out.
04:30 1.♘c4 d5 2.♗xc7 ♔xc7 No. There is nothing heroic there, I'm afraid.
05:10 1.♘c4 d5 2.♘e5 threatens bishop and queen, and at my leisure I can swap off his bishop. The position feels comfortable.
05:40 The other option I would consider is pushing c4 to start attacking his king.
06:05 1.c4 looks also okay, for sure. It blocks my knight from going there, though.
06:10 I still like the move 1.♘c4 to be honest.
07:00 I don't need to castle just yet. That can wait. I am going to stick with 1.♘c4.
08:00 1.♘c4 ♗c6, attacking g2. I can no longer play the desired 2.♗xd6 sac.
08:40 1.♘c4 ♗c6 2.0-0 But it's not winning.
09:00 What about 1.b5!?
09:20 It prevents ...♗c6 and can be followed by a4, etc. I like the position for White, but I can't see any obvious moves here.
09:40 1.c4 would be nice for me.
10:00 1.♕b3? No.
10:45 Maybe 1.c4 is better for me. I'll play simple and boring: 1.c4 It puts the pressure on him, and I can slowly crush him with a4 and b5.

1.c4

Julio Granda
Elo 2630

Evaluation: +0.5
01:00 My first impression is that White is better, despite the white king still being in the centre. White has more options to "break", whereas the ...e5 break is harder for Black to realize.
02:00 Black is threatening 1...♘fd5 followed by f4.
02:30 The first idea that comes to mind is 1.c4.
04:30 1.c4 is White's most logical move. Apart from preventing 1...♘fd5, it also prepares the c5 break. Although coming to think of it, I might prefer breaking through with a4 and b5, with the idea playing b6, in similar fashion to the English attack in the Najdorf, but with colours reversed.
I always tell my students to look for the pawn breaks available in each position. I can't think of any other move better than 1.c4.
05:30 1.c4 e5, trying for some kind of counterplay. I see that if Black cannot break with 1...e5, they are really struggling.
09:15 Yes, 1.c4 is the best move here. It also initiates the expansion on the queenside. Black's only hope is to sacrifice something and open the centre.
14:30 My only worry is if after 1.c4 e5 Black has some startling Alpha Zero type sacrifice that opens up my position. But I don't see it. 1.c4 e5 2.dxe5 dxe5 3.♗xe5 ♘c6 4.♗c3 ♖he8 5.♗xf5 ♘e5 This position may feel a bit uncomfortable.
16:15 I see I have to play **1.c4**.

Evaluation: White is better. (+0.60)

Michael Adams
Elo 2701

00:30 Looks like White has started some action on the queenside.
00:40 Maybe White can continue with 1.b5 or 1.c4.
01:30 Not clear how Black can proceed on the kingside. He may try 1...♘fd5. But 1.c4 would prevent that.
02:10 1.♘c4 threatening to take on d6 is a cheap trick. Black can just play 1...♔b8.
03:00 1.c4 or 1.b5 are probably the best moves. 1.c4, threatening c5, is worth considering.
03:30 1.c4 ♘g6 2.c5, creating an opening for the bishop. So perhaps we don't need to play b5 immediately.
04:45 1.c4 and c5 is coming next move. White could castle first. But I don't think it is worth committing the king immediately. Especially as 1...♘fd5 is a threat.
05:00 So therefore 1.c4 has to be the right move as it has a defensive purpose, as well as initiating an attack on the queenside.

05:20 I think White is doing well here.

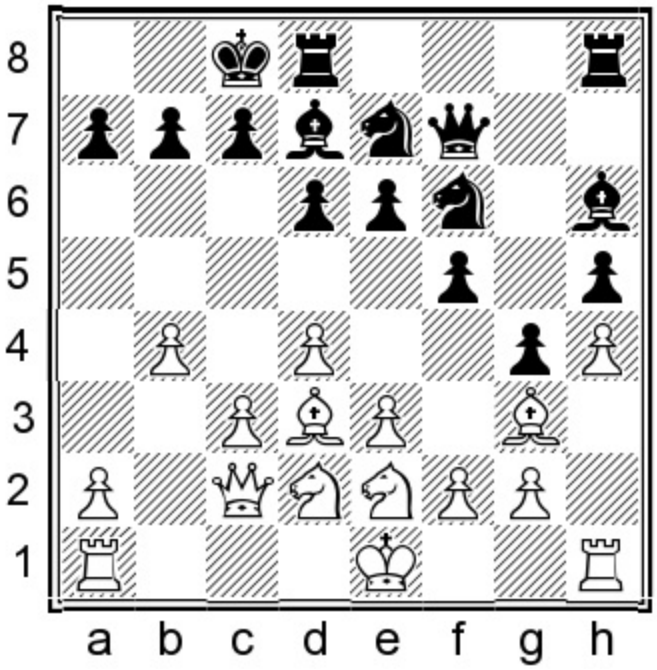
1.c4

Evaluation: It is hard to assess, but I'd say it is: +0.4

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



The question here is whether White should castle first or make a useful pawn move on the queenside instead, as his king is not too uncomfortable in the centre for the moment.

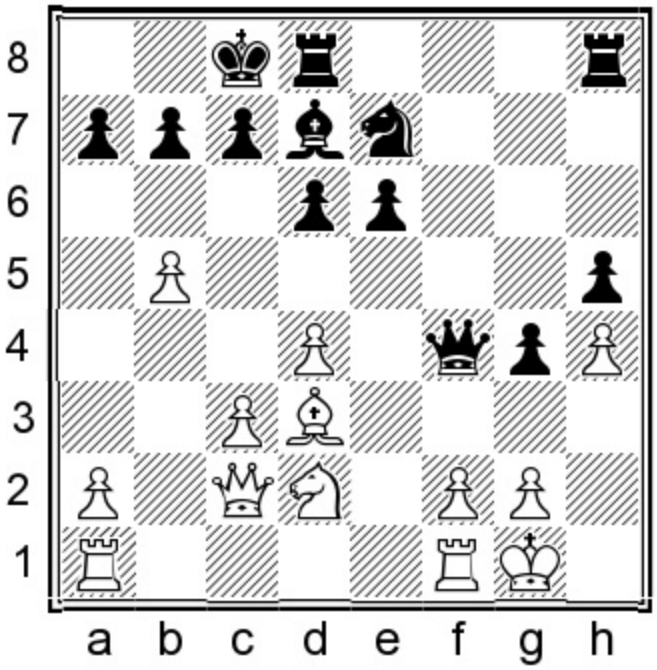
1.c4!

King positioning is an important factor here. Black's monarch is committed to the queenside, where White has the potential for a dangerous pawn storm. White's king is going to settle on the kingside, where the somewhat locked pawn structure should make it more difficult to attack effectively. This means that White should be doing well, but with all the pieces still on the board, there are a lot of details to consider.

Advancing the c-pawn seems best, as it has the considerable benefit of crossing one of Black's main plans, by preventing either knight landing on d5. It also prepares two possible attacking plans. Obviously c4-c5 is one of them; but secondly, by restraining Black's counterplay as mentioned above, it helps to prepare a gradual advance of the a- and b-pawns as a tin opener on the queenside. Once I examined the position in a bit more detail, I realized it creates a real problem as to how to

respond. However, I did turn up a radical tactical idea for Black, so now I have slightly re-evaluated and consider that the less subtle 1.0-0, 1.a4 and 1.b5 are all very reasonable alternatives.

Phil's choice in the game was 1.0-0!?, and this natural move can't be bad. I thought the drawback was that Black can open some kingside lines: 1...♘fd5 2.b5 f4 3.♘xf4 ♘xf4 4.♗xf4 ♗xf4 5.exf4 ♕xf4



I initially thought this was not that clear, but in fact White controls the board pretty effectively, and can target the newly accessible weak pawn on e6, beginning with 6.g3 ♕f7 7.♖ae1±.

To add to Black's woes, the bishop on d7 is lacking scope. The pawn structures in front of the respective kings also remain a key feature. White's king remains snug, as there are still three pawns around his king; and crucially, Black has no way of using his pawns to undermine this. In contrast, White has the long-term potential to trundle his foot soldiers up on the queenside and eventually cause a serious breach to give access to the black king.

1.♘c4? has the one-move threat of ♗xd6, but this enticing tactic only leads White in the wrong direction: once the threat is parried, the knight will be misplaced in the way of the c-pawn. 1...♔b8 is possible, and 1...♗c6 followed by ...♘e4 is another idea not available when the knight is on d2.

There is an argument for advancing the a- and b-pawns as soon as possible, aiming to breach the queenside and attack the black king. White has a lot of pieces ready for action in that sector, but in a position with so much potential it looks a bit slow and simplistic. Nevertheless, 1.b5 ♘fd5 2.0-0 transposes to 1.0-0 above, which turned out well for White after 2...f4 and so on.

1.a4 has similar ideas to 1.b5, but is a little less flexible.

1.♖b1 is unnecessarily cautious.

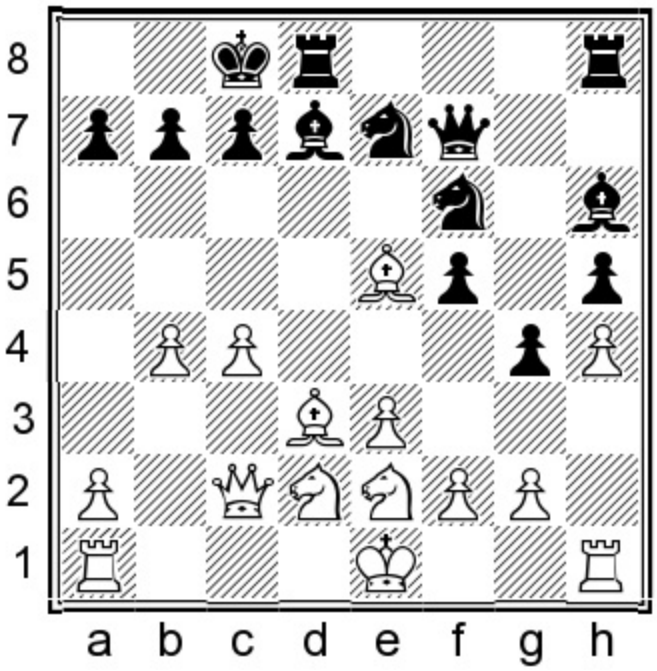
1...e5!?

This possibility has made me a little less convinced about 1.c4, but this sacrificial attempt can be defused effectively.

If 1...♔b8 then 2.0-0 looks a good moment to castle, now White has more control. (2.c5 is also possible; 2.b5 is another good move, preventing the knight or bishop from landing on c6.)

One important detail is that 1...♘g6 looks like the logical continuation, supporting an ...e5 advance. However, after 2.a4 Black is struggling for a sensible way to proceed, as 2...e5 3.♗xf5 simply grabs a key pawn. Alternatively, 2...♘g8 prepares ...e5, but 3.c5! crushingly prevents it.

2.dxe5 dxe5 3.♗xe5

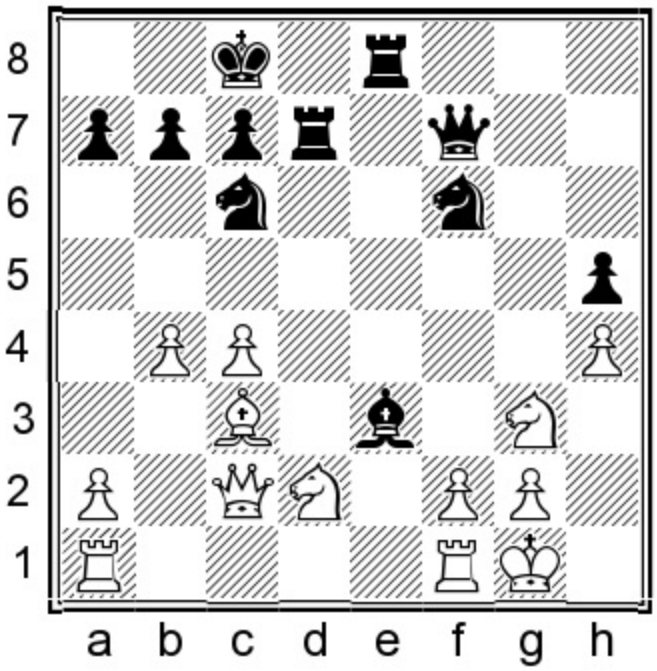


3...♘c6! 4.♗c3 g3!

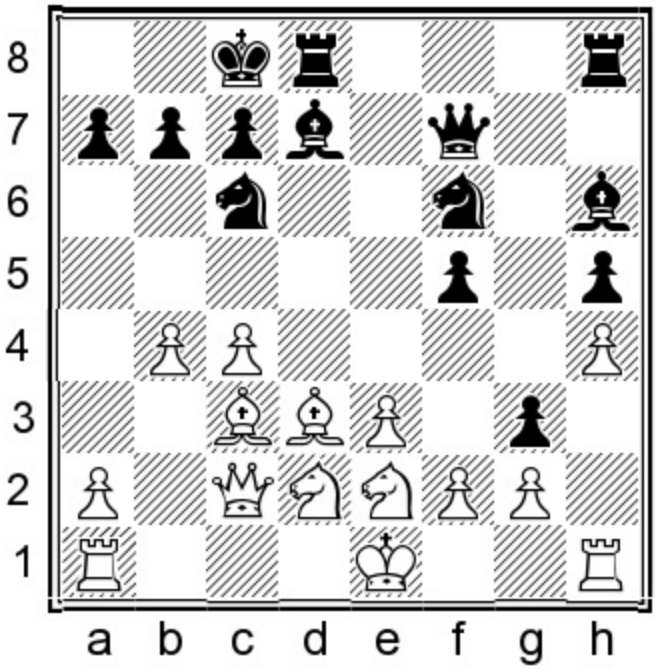
The situation on the board continues to change radically.

The simplest reply to 4...♖he8 is 5.0-0, when Black does not have much to show for the sacrificed pawn.

Another interesting possibility is: 5.♗xf5 g3! (5...♘e5? is mentioned by Julio, but 6.0-0+– leaves Black with nothing) 6.♘xg3 ♗xe3 7.♗xd7† ♖xd7 8.0-0



Black has insufficient compensation for the pawns. For instance, 8...♗xd2 9.♗xd2 ♘d4 10.♕a4 and the attack on a7 slows down the counterplay.

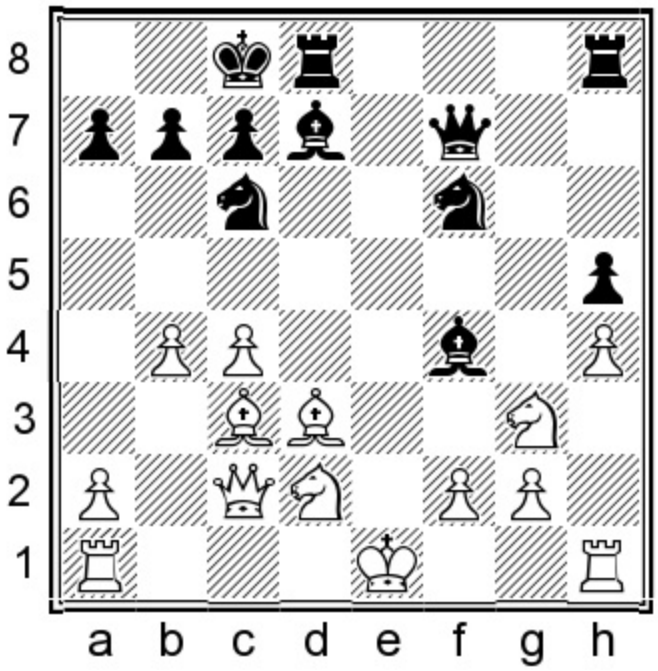


5.♘xg3 f4 6.exf4

Black does not have sufficient compensation, but the sacrifice has effectively changed the nature of play and would not be so pleasant to meet over the board.

6...♗xf4

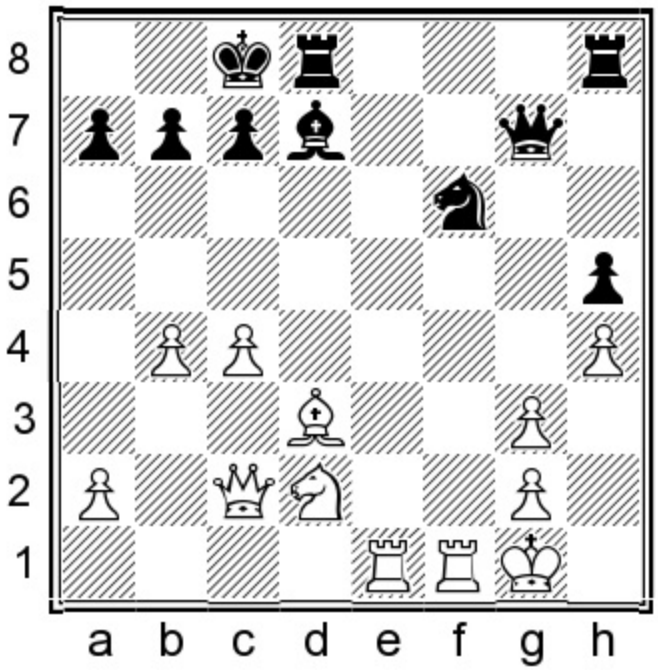
6...♖he8† 7.♘e2 ♗xf4 8.0-0 ♗xd2 9.♗xd2 clearly favours White.



7.0-0 ♘e5 8.♗xe5 ♗xe5 9.♖ae1 ♗xg3

9...♘g4 is well met by 10.♘f3.

10.fxg3 ♕g7



11.♖e2!

With every precise move, Black's initiative is gradually diminishing. The pawn on g3 can't be captured as the knight on f6 would be hanging.

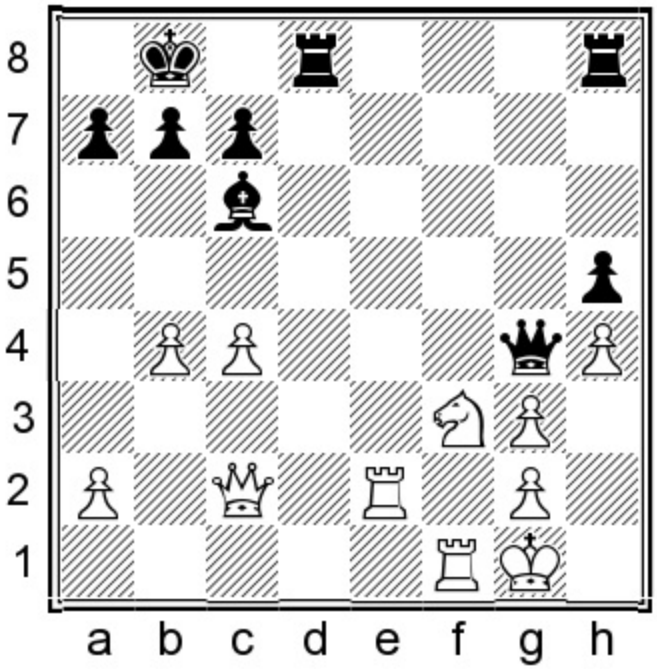
11...♘g4

11...♖df8 12.♕c3 ties up Black's forces.

12.♘f3

Preventing a queen check on d4.

12...♗c6 13.♗f5† ♔b8 14.♗xg4 ♕xg4



15.♘e5 ♕xg3 16.♘f7

White wins the exchange, with g2 securely defended.

Scoring for Puzzle 22

Best move	Score	Evaluation
1.c4	**10**	**+1.4**
1.b5	6	+1.25
1.0–0	6	+1.1
1.a4	5	+1
1.♖b1	3	+0.8
1.Others	1	

Bonus points for correct evaluation

Between +0.3 and +0.59	1 point
Between +0.6 and +0.89	2 points
Between +0.9 and +2.49	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

In this seemingly standard position there are many good moves, including castling kingside, which is the move I played. However, on closer inspection, there is a more precise option to limit Black's possibilities, which appeals to GMs. Did you find it?

I am amazed by how quickly Adams zooms in to find the best candidate move in these type of positions. It just took him forty seconds to find the idea, despite the crowded board.

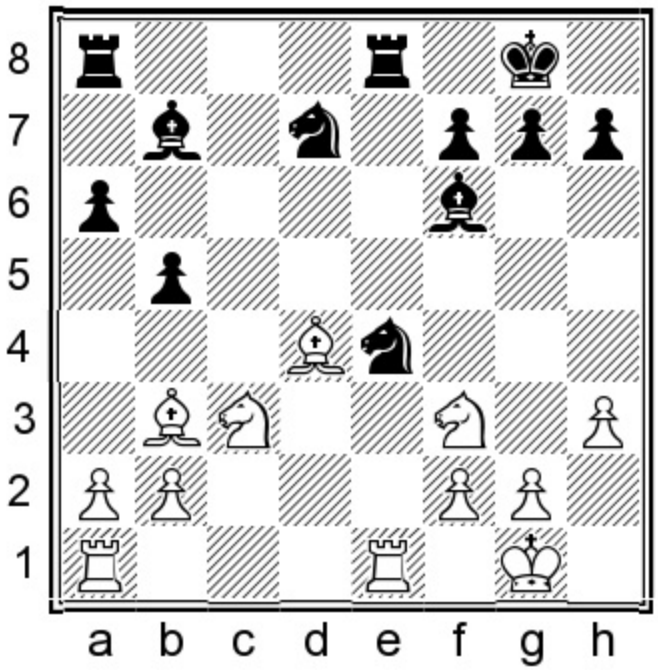
Adams Insight

The one-move threat of 1.♘c4 planning ♗xd6 was just too tempting for some here. However, it is not only easily parried, but also sets back White's strategic plans by impeding the gradual queenside pawn push White should be aiming for in his long-term progress.

1.c4 is the most ambitious move. Once the possibility of a knight moving to d5 is prevented, Black has surprisingly few active options. The 1.c4 e5 line which Julio investigated is very important, as Black has to look for activity – without this break it is hard to see how Black can generate any play before White rolls his pawns forward on the queenside. If play continues calmly White's king will be

secure on the locked kingside, while on the other flank a pawn storm can open up the opposing king.

Puzzle 23



White to play – Level 9

Show/Hide Solution

Puzzle 23 – Legend

Andrew McCumiskey
Elo 2017

00:25 No queens. I play better when there are queens on the board. Position looks very even.
00:45 I have to do something about his strong knight on e4.
01:20 1.♗xf6? No. That activates his knight on d7.
01:30 1.♗xf7†, king takes. No. There is nothing there.
02:15 First looking to see if there are any sacs out there. 1.♘d5 looks good.
03:00 1.♘d5 ♗xd4 2.♘xd4, still threatening ♘c7, looks nice.
04:00 1.♘d5 ♗xd5 is another possibility.
The other move I've got is: 1.♗d5 ♗xd5 2.♘xd5 ♖ac8
05:00 Yes. 1.♗d5! ♗xd5 2.♘xd5 ♗xd4 (if 2...♗d8? it gets buried) 3.♘xd4 (threatening ♘c7) 3...♖ac8 4.f3 Threatening his knight. And if it moves, my knight can go to e7 forking his king and rook.
05:20 Yeah. He is toast! 1.♗d5 winning for White. **1.♗d5**

Evaluation: +3.0

Anonymous
Elo 2305

00:30 Pieces are hanging all over the place. Many options to capture. Let me see.
01:15 Okay. Basically, the position is quite tactical. The position is very open and there might be some tactical tricks. We should definitely consider moves likes 1.♘d5, or 1.♗d5.
01:45 Let's start with 1.♘d5 threatening ♘c7, or to get the bishop pair.
02:30 1.♘d5 ♗xd4 2.♘xd4 with the idea of ♘f5.
02:45 These positions are tricky, and it is easy to miss something.
1.♘d5 generally, looks good. And seems to give an advantage. But let's start with the simplest line: 1.♘xe4 ♗xe4 2.♗xf6
04:30 No. That's not good enough. That leads to a draw.
05:30 1.♘d5 ♗xd4 This is forced. 2.♘xd4 ♘d2!? 3.♘c7 ♖xe1 4.♖xe1 and Black is threatening to take my bishop on b3, which I don't want to lose.
07:00 If 1.♗d5 ♗xd5 2.♘xd5 ♗xd4 3.♘xd4 White's knight looks menacing, which might be annoying for Black.
Okay. So we have established that 1.♘d5 doesn't work because of 2...♘d2. Therefore I will look deeper into 1.♗d5.
09:00 1.♗d5 ♗xd5 2.♘xd5 ♗xd4 3.♘xd4, threatening ♘c7 and ♘f5. And 3...♖ac8 doesn't work.
11:00 This seems to give White some edge. At least it is aggressive. The position looks relatively equal. But in these positions it is crucial to play actively. I believe after 1.♗d5 and the ensuing exchanges that White is more active.
13:00 1.♗d5 ♗xd5 2.♘xd5 ♗xd4 3.♘xd4 ♘ef6 4.♖xe8 ♖xe8 5.♘c7, maybe winning a pawn. It is complicated, and I can't evaluate. But I think Black cannot play 4...♖xe8. He has to take with the knight: 4...♘xe8 And then I could play something like 5.a4.
14:00 It seems White has the advantage. I would play 1.♗d5.

Evaluation: +0.4

Keith Arkell
Elo 2429

00:05 f7 is sensitive.
00:15 White simply has to be better here.
00:20 I am looking at crude attempts to battle my way through.
00:50 If 1.♗xf6 ♘exf6? 2.♘g5! is very strong.
02:00 1.♗xf6 ♘dxf6 2.♘xe4 ♗xe4 3.♘g5 ♗d5 seems to hold. I can't improve my position.
02:30 So, 1.♗xf6 ♘dxf6 seems to be okay for Black.
03:00 1.♖ad1 ♘xc3 2.♗xc3 ♗xf3

03:50 1.♖ad1 It just seems I am swapping pieces, and doesn't look quite right.
04:00 I could put something on d5.
04:30 I wouldn't put my bishop on d5, so I could put the knight. 1.♘d5
05:40 I'm sure White is significantly better here. My candidate moves are 1.♗xf6, 1.♖ad1 and 1.♘d5. It looks like White has an edge.
08:50 The most ambitious move is 1.♘d5, which gets the two bishops. 1.♘d5 ♗xd4 2.♘xd4 ♖ac8 3.♘f5
10:30 Now Black can play 3...♔f8 which seems to hold everything.
10:45 I can't see a tactical knockout. 1.♘xe4 ♗xe4 gives nothing.
11:45 I have the feeling I am missing something.
12:15 Anyway I play **1.♘d5**.

Evaluation: +0.5

Julio Granda
Elo 2630

00:15 There is equal material.
01:30 This puzzle is difficult, because there is a symmetrical pawn chain, and if White doesn't have anything tactical it will be difficult for him to gain an advantage.
I have rejected all direct exchanges, as they lead to nothing. So far the most promising move I have found is 1.♘d5, to try and maintain the pressure.
05:00 1.♘d5 ♗xd4 2.♘xd4, and the threat of ♘c7 is uncomfortable for Black. If 2...♖ac8 3.♘f5 might be good.
06:45 On closer inspection: 1.♘d5 ♗xd4 2.♘xd4 ♖ac8 3.♘f5, Black can play 3...♔f8!.
08:30 If 1.♗d5 ♗xd5 2.♘xd5 ♗xd4 3.♘xd4 ♘ef6 and Black exchanges everything.
12:00 After 1.♗d5 Black could even consider 1...♘d6, again, exchanging everything.
15:00 The position seems pretty much equal. The only chance I see to keep the initiative is by playing 1.♘d5.
18:00 I think I have to play 1.♘d5. I can't see any other move.

1.Nd5

Evaluation: +0.5

Michael Adams
Elo 2701

00:10 There are lots of pieces facing each other. It doesn't seem to be in White's favour to exchange pieces.

00:30 1.♘d5 and 1.♗d5 might be possible.
01:30 1.♗d5 ♘xc3 2.♗xb7 ♘e2† doesn't work for Black because of 3.♖xe2.
02:00 1.♗d5 ♗xd5 2.♘xd5 ♗xd4 is a possible line.
03:00 1.♗d5 ♗xd5 2.♘xd5 ♖ac8 may also be playable.
03:30 1.♘d5 ♖ac8 or
1.♘d5 ♗xd4 2.♘xd4 could still be problematic for Black.
If 1.♘d5 ♖ac8 2.♘xf6† White is better.
04:50 The key line is: 1.♘d5 ♗xd4 2.♘xd4 ♖ac8 3.f3 (maybe) 3...♗xd5 4.♗xd5 ♘d6 To protect the b7-square from the bishop.
(Thinks in silence for a while.)
08:00 I'd go for 1.♘d5 as best move. Although 1.♗d5 seems of similar strength.
08:45 There seems to be an initiative. Although it'll soon burn out.

1.♘d5

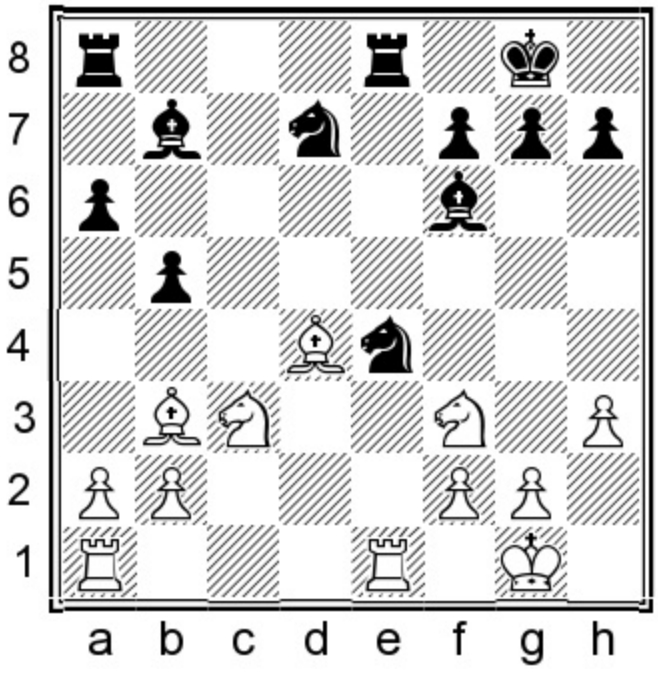
Evaluation: +0.3

Deeper Analysis by Michael Adams

Robert James Fischer – Karl Robatsch

Vinkovci 1968

1.e4 e5 2.♘f3 ♘c6 3.♗b5 a6 4.♗a4 ♘f6 5.0-0 ♗e7 6.♖e1 b5 7.♗b3 d6 8.c3 0-0 9.h3 ♘b8 10.d4 ♘bd7 11.♘h4 exd4 12.cxd4 ♘b6 13.♘f3 c5 14.♗f4 ♗b7 15.dxc5 dxc5 16.♕xd8 ♗xd8 17.♗d6 ♖e8 18.♗xc5 ♘bd7 19.♗d4 ♘xe4 20.♘c3 ♗f6



White's only hope for an edge is to move a piece to d5, to exploit the momentary unsteadiness amongst Black's minor piece coordination, but it takes careful calculation to determine which is best.

21.♗d5!

Fischer calculated impressively cleanly here to find the only way to nurture a small edge.

21.♗xf6 ♘dxf6 22.♘xe4 ♗xe4 23.♘g5 ♗d5 doesn't achieve much.

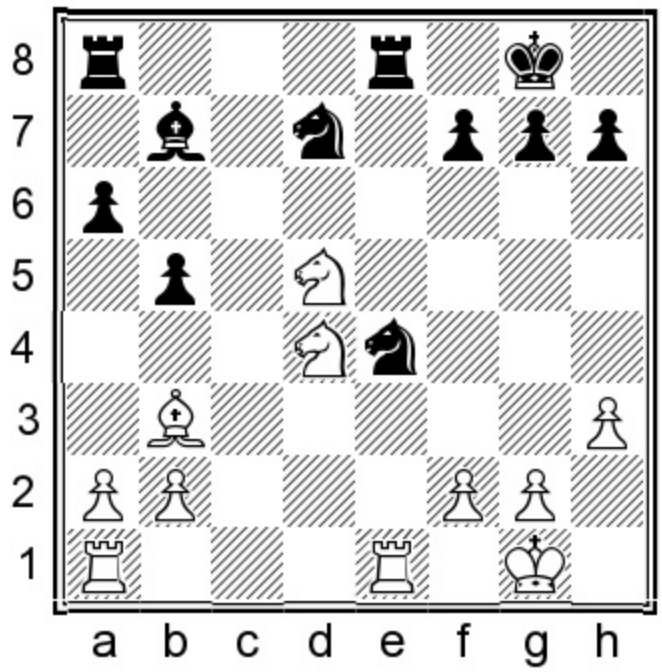
21.♘xe4 ♗xe4 22.♗xf6 ♘xf6 23.♖e3 gives very little.

21.♖ad1 ♘xc3 22.♗xc3 ♘c5 23.♗xf6 ♗xf3 24.♖xe8† ♖xe8 25.gxf3 gxf6 cleans up most of the board with an equal position.

21.♘d5!?

This proved a tempting proposition for most participants – it felt correct to me and several other players to keep the bishop aimed at f7. However, Black can neutralize the slight pressure in more than one way.

21...♗xd4 22.♘xd4



22...♘ec5!

This backwards defensive knight move, parrying the threat of ♘c7 by opposing rooks down the e-file, is not easy to see. It is the most precise way of totally defusing White's idea.

There are two other decent knight moves:

22...♘ef6 doesn't give White much.

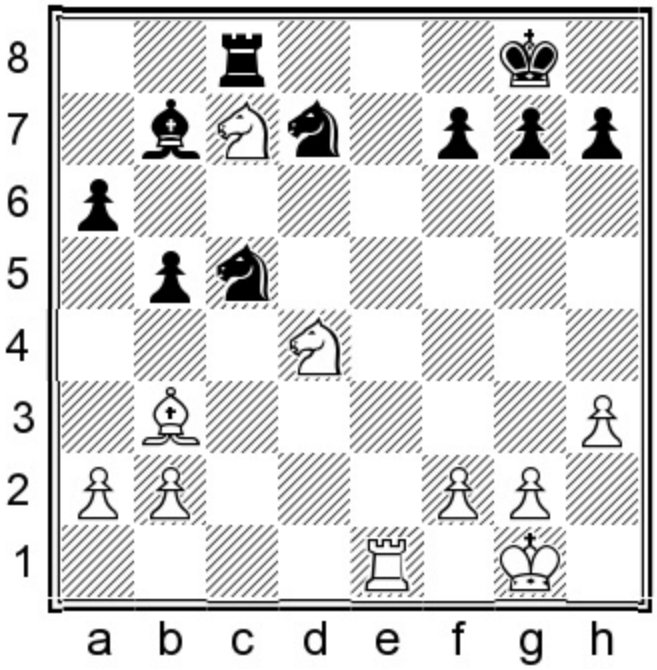
22...♘d2!? is another playable continuation mentioned by the anonymous player, who did an excellent job with this position – better than the grandmasters. 23.♖xe8† ♖xe8 The position peters out eventually. For instance, 24.♖d1 ♘xb3 25.♘xb3 ♗xd5 26.♖xd5 ♘f6 27.♖d6 ♖e1† 28.♔h2

♘e8 29.♖xa6 ♖b1 30.♘d4 ♖xb2 and the draw is getting close.

23.♘c7

This is the only critical idea to check, but it doesn't work.

23...♖xe1† 24.♖xe1 ♖c8



Black is fine, since 25.♘f5? allows 25...♖xc7 followed by ...♘f8 to cover the back rank.

21...♗xd5

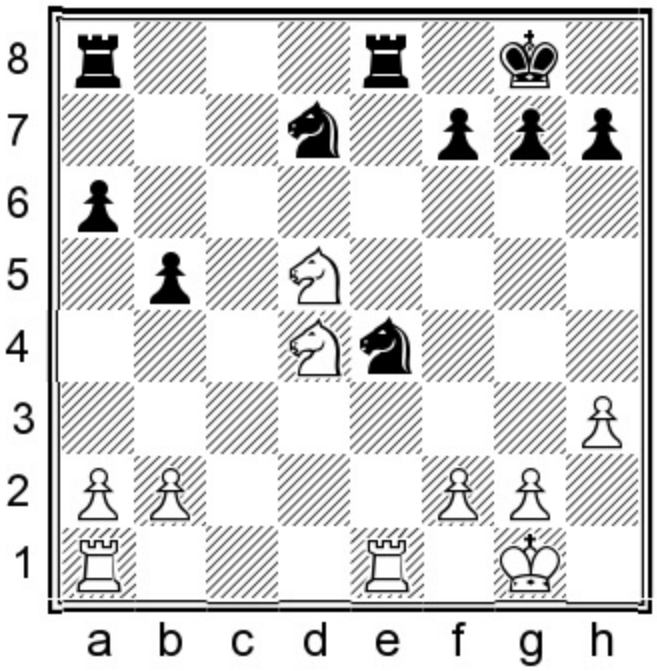
21...♗xd4 22.♘xd4 ♗xd5 23.♘xd5 transposes to the game.

21...♘d6 22.♗xb7 ♘xb7 23.♘d5 leaves the knight passive on b7.

22.♘xd5 ♗xd4

22...♖ac8 23.♖ac1! maintains some pressure. (23.♘xf6† ♘dxf6 is not that impressive.)

23.♘xd4



23...♘ef6

23...♘d6 24.♘c7 ♖xe1† 25.♖xe1 ♖a7 26.♘e8! leaves the knight on d6 embarrassed.

24.♖xe8† ♘xe8

The fact that this knight has been driven to the back rank means that White has a small advantage, which Fischer increased to decisive proportions, although the point got away in the end.

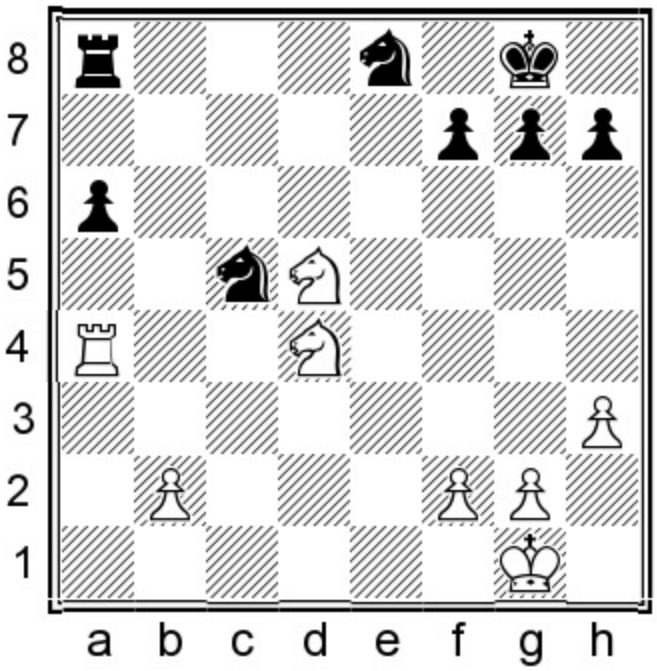
24...♖xe8 25.♘c7 ♖e4 26.♖d1 wins a pawn.

25.a4

25.♘c6!?± was a good alternative.

25...bxa4 26.♖xa4 ♘c5

26...g6!? 27.b4 ♔g7 was worth considering.



27.♖c4

27.♖a5 ♘e6! 28.♘xe6 fxe6 29.♘b4 ♖b8 holds.

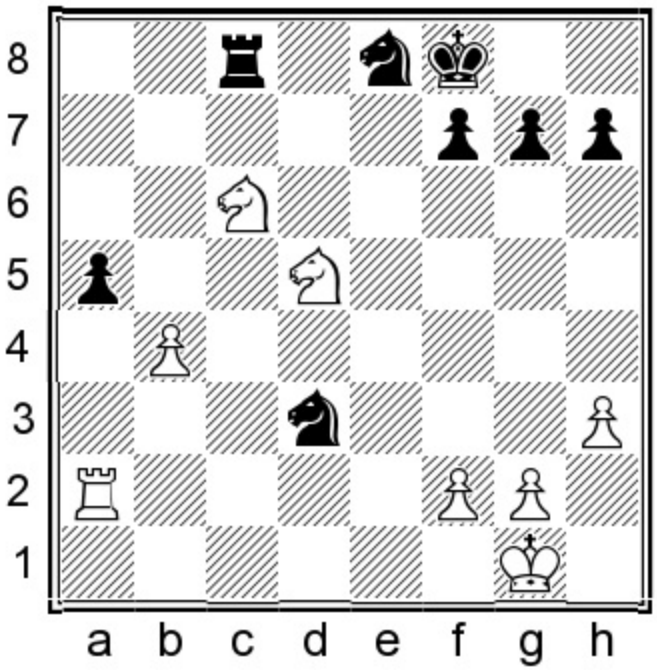
27...♘d3?

27...♘d7! would have kept White's advantage within reasonable limits.

28.♘c6 a5 29.b3 ♘b2 30.♖c2 ♘d3 31.♖a2 ♔f8 32.b4

32.♖xa5 ♖c8 33.♖a6 was better, simply winning a pawn.

32...♖c8

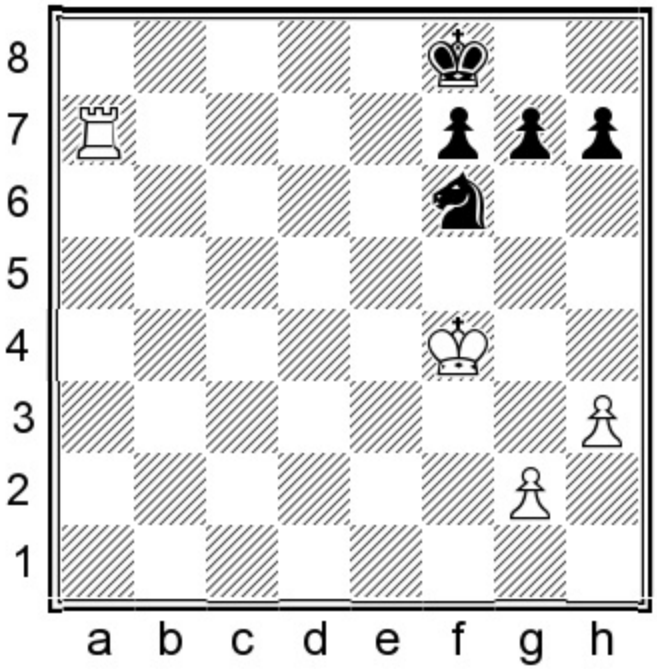


33.bxa5

After 33.b5! Fischer would still have had reasonable chances to win, but now Black slips away.

33...♖xc6 34.a6 ♖c1† 35.♔h2 ♘c7! 36.♘xc7 ♖xc7 37.a7 ♖xa7 38.♖xa7 ♘xf2 39.♔g3 ♘e4† 40.♔f4 ♘f6

Black has escaped to a drawing endgame, and Robatsch continues to hold firm.



41.♔e5 h5 42.♔d6 g6 43.♔e5 ♔g7 44.♖a4 ♘d7† 45.♔d6 ♘f6 46.♖f4 ♘g8 47.♔e5 ♘h6 48.♖f1 ♔f8 49.♖a1 ♔g7 50.♖a7 ♘g8 51.♖a6 ♘h6 52.♖c6 ♘g8 53.g4 hxg4 54.hxg4 ♘h6 55.g5 ♘f5 56.♖c7 ♘g3 57.♖a7 ♘h5

½–½

Scoring for Puzzle 23

Best move	Score	Evaluation
1.♗d5	**10**	**+0.45**
1.♗f6	3	0
1.♘e4	3	0
1.♘d5	3	0

Bonus points for correct evaluation

Between –0.09 and 0.09	1 point
Between +0.10 and +0.29	2 points
Between +0.30 and +0.59	**3 points**
Between +0.6 and +0.89	2 points
Between +0.9 and +1.39	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Bobby Fisher's understanding of chess was legendary. I wanted to find out if the move played by Bobby was recommended by the engine, and indeed Stockfish endorses Fischer's move as the only one which maintains a minimum advantage.

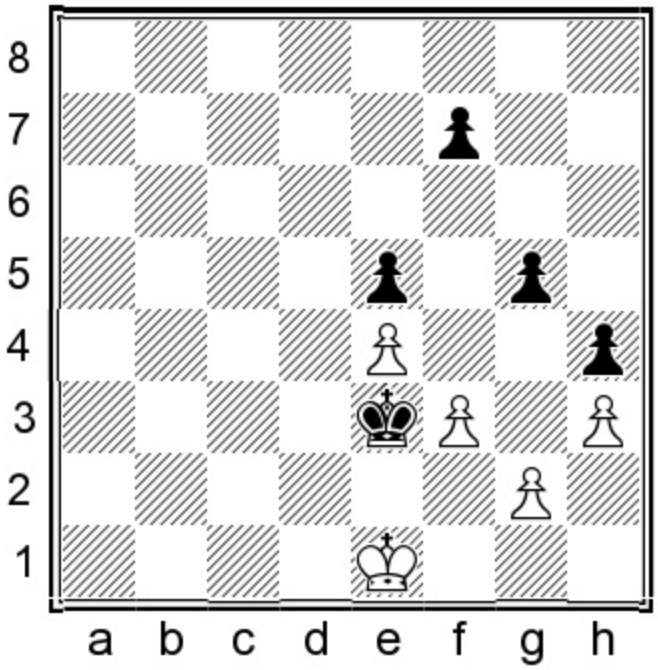
Adams Insight

Another one where I'm not sure I am qualified to advise! It's surprising that Keith and Julio both made the same mistake in this puzzle: 0/3 correct first moves was not a great return for the GMs here.

My error was that I didn't look hard enough for Black's defensive ideas after 21.♘d5. Tactical defensive resources can be harder to see, but as Black had three reasonable moves with the knight on

e4, after swapping bishops I should have considered at least some of them in more detail. If I had, I think I would have settled on the correct option. The fact that White still keeps some initiative even after all the bishops get exchanged is a reminder that knights are tricky pieces, and White's are much better placed there.

Puzzle 24



Black to play – Level 6

Show/Hide Solution

Puzzle 24 – Breakthrough

Juan Reyes
Elo 2451

00:45 If 1...♔f4 2.♔f2 and I don't seem to be making any progress.
01:45 The only way to force matters is with 1...g4. Now 2.hxg4 doesn't work because of 2...h3 and I collect all the pawns with my king.
03:00 So the only try after 1...g4 is 2.fxg4. But now I take on e4.
04:30 1...g4 2.fxg4 ♔xe4 3.♔e2 f6 and White has to cede ground. 4.♔f2 ♔d3 and the passed pawn queens.
04:45 1...g4

Evaluation: Black wins.

Julio Granda
Elo 2630

00:17 My first impression is that the black king is very active. Only Black can win in this position.
00:24 Black also has a waiting move at his disposal, with ...f6. Black is the only one who can force breaks in the pawn chain.
One has to know that the pawn breaks always favour he who has them. Black should win. Now it's time to calculate.
01:20 In all king and pawn endgames, the concept of opposition is as important as weaknesses. In this case I have the opposition which I don't want to lose, and White has a weakness on g2.
I have two options. Go for the weakness on g2 while maintaining the opposition, or try and force a pawn break. 1...♔f4 2.♔f2 f6
(Thinks for almost 10 minutes.)
12:45 The ...♔f4 line doesn't work.
I have wasted a lot of time on 1...♔f4. I should have been more disciplined, and started by looking at the breaks and more specifically the most forcing line which is the pawn break 1...g4.
15:45 1...g4 If 2.hxg4 h3 and after 2.fxg4 ♔xe4, Black wins. The march of the e-pawn ends the struggle.

1...g4

Evaluation: Black wins. Decisive advantage.

Michael Adams
Elo 2701

00:45 Black needs to get to the pawn on g2. Unless there is a break with ...g4.
01:45 It seems difficult to get White into zugzwang. The white king can easily defend the g2-pawn.
03:00 I am thinking about the ...g4 break. It looks pretty dangerous for White.
Black is queening first, even if White gets a passer also. 1...g4 2.hxg4 h3 3.gxh3 ♔xf3
04:30 Now if 4.♔f1 ♔g3 5.♔e2 ♔xh3 6.♔f3 f6 wins; and if 4.♔d2 ♔g3 5.♔d3 ♔xh3 6.♔c4 ♔xg4 Black wins.
04:45 Alternatively, 2.fxg4 ♔xe4 3.♔e2 ♔f4 4.♔f2 e4 5.♔e2 ♔g3 6.♔f1 e3 7.♔e2 ♔xg2 8.♔xe3 ♔xh3 9.♔f3 f6! wins.

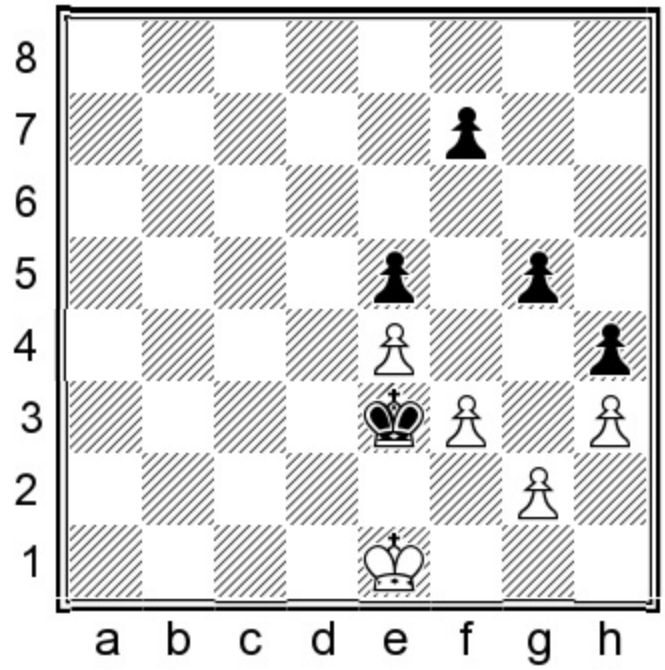
1...g4

Evaluation: Black wins.

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

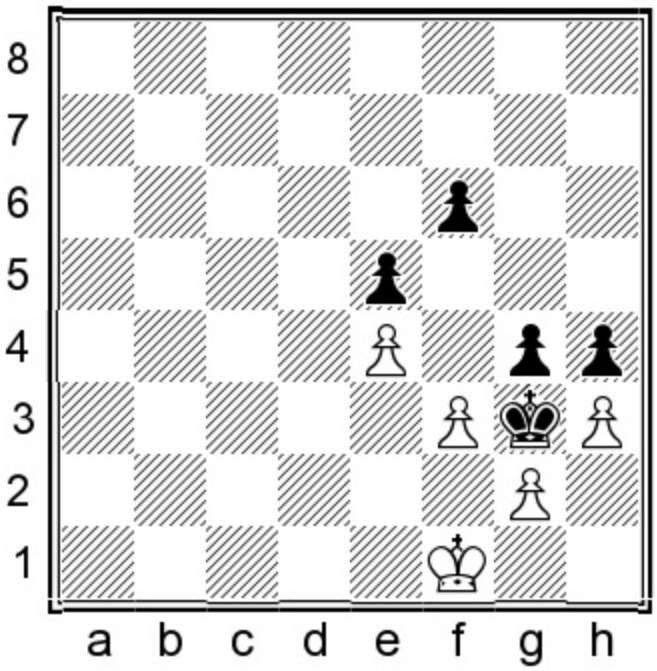
Internet (blitz) 2019



Black's king is in a dominant position, and Black has a large space advantage, but exploiting this isn't easy. The base of the pawn chain on g2 is not vulnerable to attack, and White's king will comfortably defend this point by shuffling towards the kingside. Therefore a pawn breakthrough is required – the right moment to strike is now!

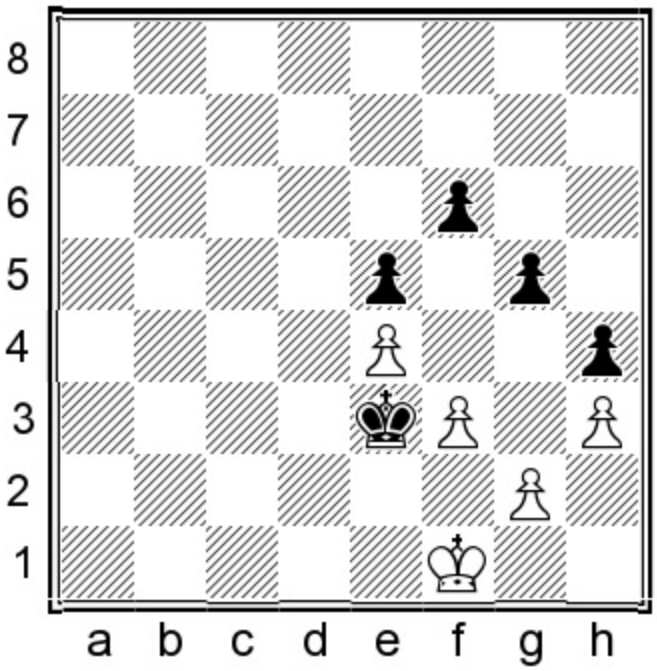
1...g4!

An unexpected move which Phil missed in the game.
1...♔f4? 2.♔f2 f6 leads nowhere, for instance: 3.♔e2 ♔g3 4.♔f1 g4 The breakthrough is Black's only chance, but it amounts to an inferior version of the solution.



5.fxg4! (5.hxg4? h3–+) 5...♔f4 6.♔f2 ♔xe4 7.g3 hxg3† 8.♔xg3 ♔d3 9.♔f2 ♔d2 (9...e4 10.♔e1 ♔e3 11.h4 ♔f4 12.h5=) 10.♔f3 ♔d3 11.♔f2 White draws.

1...f6? forces White's king to give ground but uses up the only spare tempo move. 2.♔f1



2...♔d2 (2...g4 no longer works due to 3.hxg4 h3 4.♔g1! when Black is the one who will have to be slightly careful to draw) 3.♔f2= Black can't drive the white king to a bad square. With only g2 to be targeted and pawn breaks no longer available, a draw is inevitable.

1...♔d3?!

This move is a bit trickier.

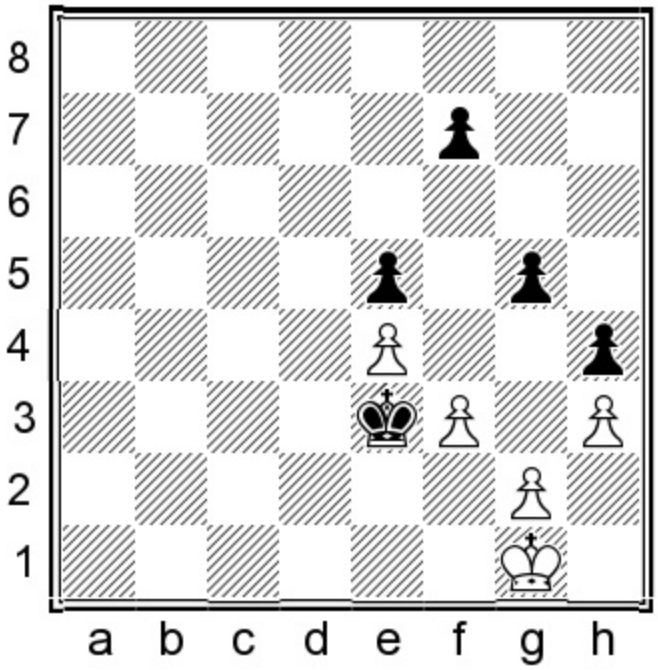
2.♔f1

2.♔f2 ♔d2 3.♔f1 ♔e3 is the same thing.

2...♔e3 3.♔g1!

3.♔e1? gives Black a second chance to win with 3...g4! as in the main solution.

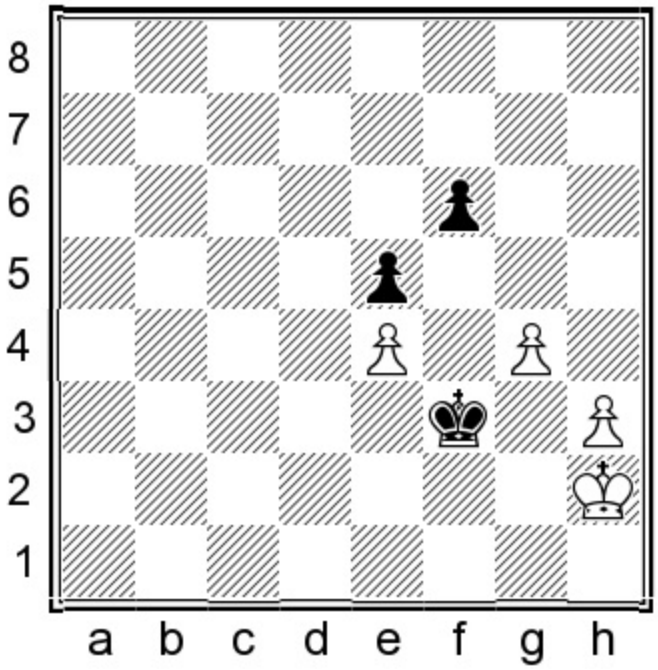
The text move should draw, although some accuracy is still required.



3...♔e2 4.♔h2 ♔f2 5.♔h1 g4 6.hxg4 h3 7.gxh3 ♔xf3 8.♔h2 f6!

8...♔xe4 9.h4 ♔f4 10.h5 ♔g5 11.♔g3 is a simple draw.

The text move is a better try. White is in zugzwang and must lose a couple of pawns, but can do so in a way that forces the black king to an unfavourable spot.



9.h4! ♔xg4 10.h5! ♔g5

10...♔xh5 11.♔h3! ♔g5 12.♔g3 f5 13.exf5 ♔xf5 14.♔f3= is a simple draw.

11.♔g3!

Keeping the opposition in White's favour.

11.♔h3? ♔xh5 12.♔g3 ♔g5 wins easily.

11.h6? ♔xh6 12.♔g2 ♔g6! is another instructive line where Black wins due to the opposition.

However, 11.♔g2! is a valid drawing line.

11...♔xh5 12.♔h3

White draws. *(See postscript to this puzzle on page 201.)*

2.hxg4

2.fxg4 ♔xe4

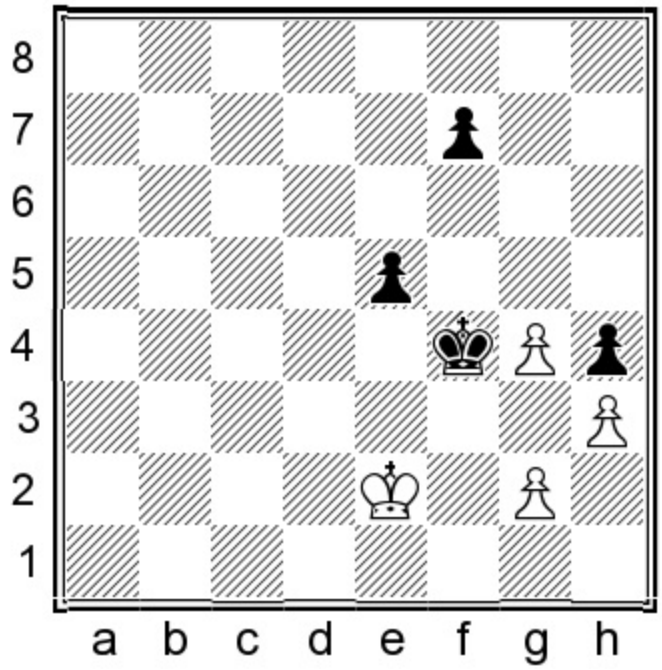
Now Black has a passed pawn which will grow in strength as it advances.

3.♔f2

3.g3 hxg3 4.♔f1 ♔f3 5.g5 g2† 6.♔g1 ♔g3 wins easily.

3.♔e2 ♔f4 4.♔f2 e4 5.♔e2 ♔g3 6.♔e3 ♔xg2 7.♔xe4 ♔xh3 8.♔f3 f6 is another possible winning line.

3...♔f4 4.♔e2



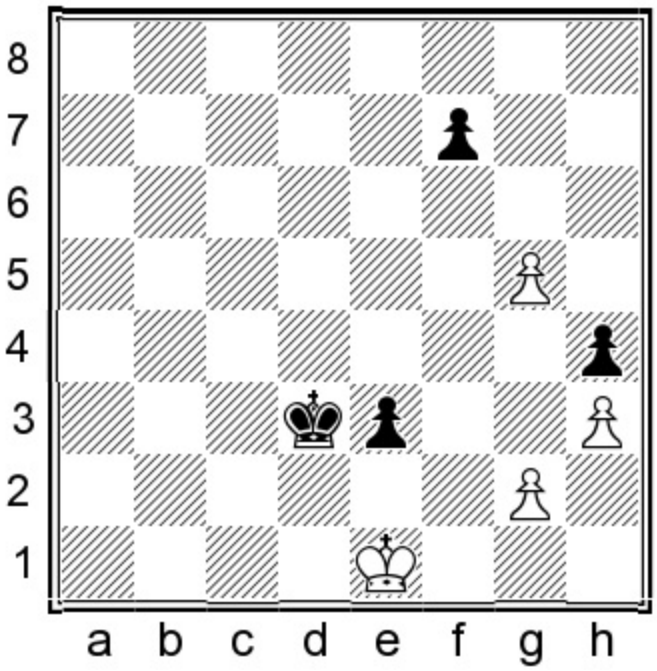
4...e4

The alternative winning line is 4...♔g3 5.♔e3 ♔xg2 6.g5 ♔xh3 7.♔f3 e4† 8.♔xe4 ♔g3 and the h-pawn promotes.

5.♔f2 e3† 6.♔e2 ♔e4 7.g5

7.♔d1 ♔d3 8.g5 e2† 9.♔e1 ♔e3 leads to the same thing.

7...♔d4 8.♔e1 ♔d3



9.♔d1 e2† 10.♔e1 ♔e3–+

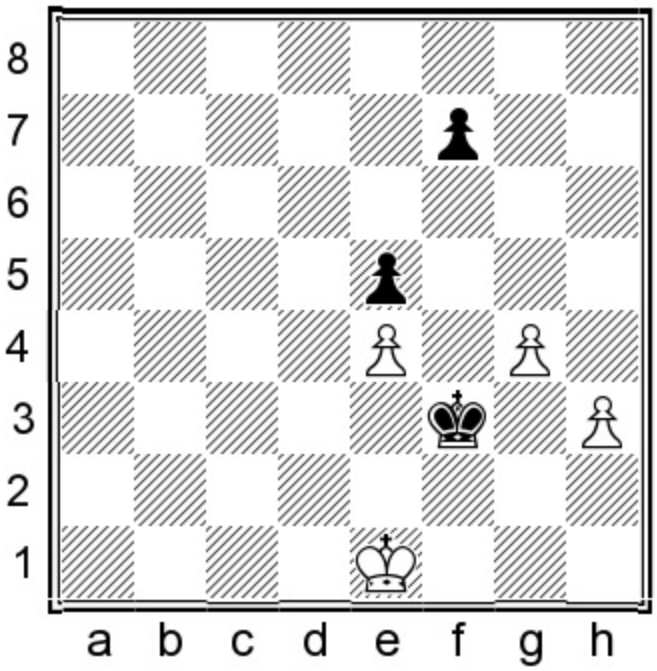
There are no stalemate ideas available.

2...h3 3.gxh3

White has no choice, as 3.♔f1 h2 is mate next move.

3...♔xf3

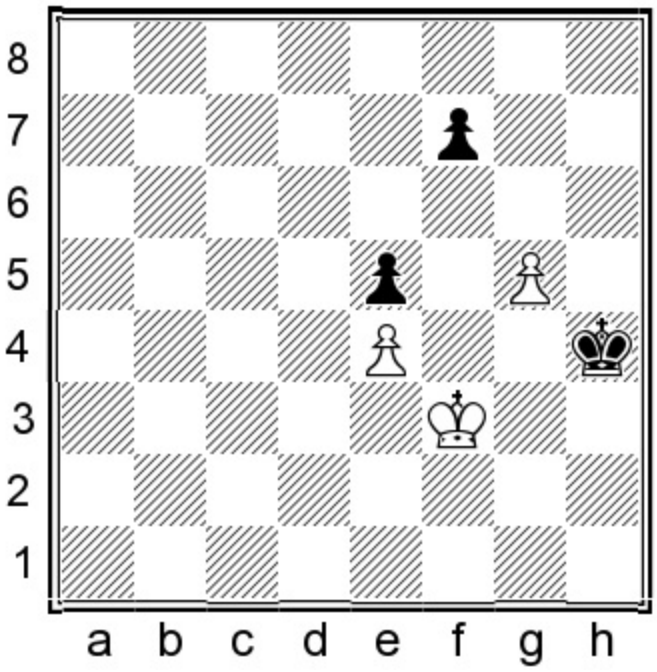
Initially it looks like the passed h-pawn could be useful, but Black's king is so active, and its counterpart so badly placed, that Black will eventually hoover up all White's pawns.



4.♔f1

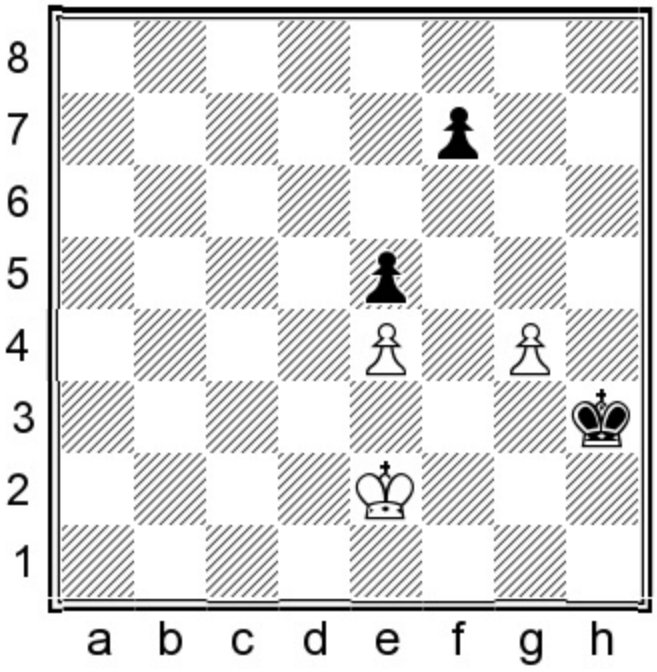
White's king isn't in time to get active: 4.♔d2 ♔g3 5.♔d3 ♔xh3 6.g5 ♔g4 7.♔c4 ♔xg5 8.♔d5 ♔f4–+

Black also wins after: 4.g5 ♔g3 5.♔e2 ♔xh3 6.♔f3 ♔h4



7.♔f2 ♔xg5 8.♔g3 f6! the key point forcing the white king to give ground. 9.♔f3 ♔h4 10.♔e3 ♔g4 11.♔d3 ♔f4–+

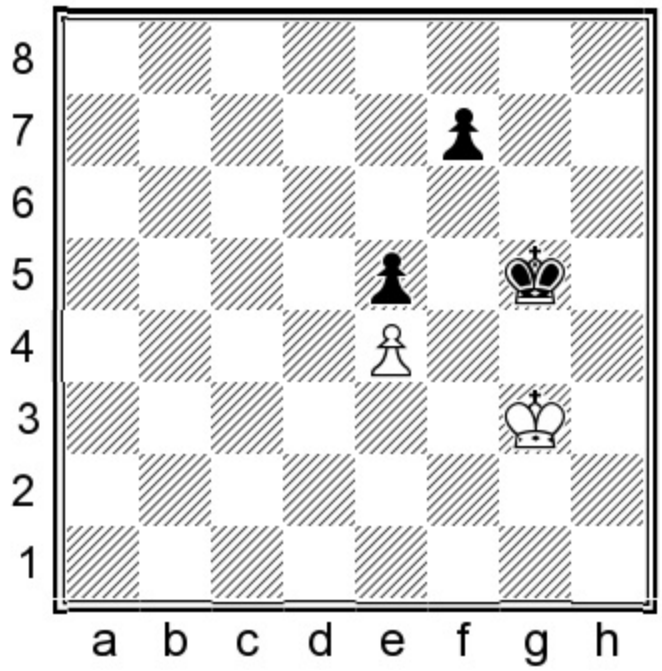
4...♔g3 5.♔e2 ♔xh3



6.g5

6.♔f3 is met by either 6...♔h4 or 6...f6 when White's remaining pawns will soon disappear.

6...♔g4 7.♔f2 ♔xg5 8.♔g3



8...f6!

With Black to move this would be a draw as above – but with White to play, the king must give ground.

9.♔f3 ♔h4 10.♔e3 ♔g4 11.♔d3 ♔f4–+

The e4-pawn is a goner.

Scoring for Puzzle 24

Best move	Score	Evaluation
1...g4	**10**	**–3**
1...f6	1	0
1...♔d3	1	0
1...♔d4	1	0
1...♔f4	1	0
1...Others	1	

Bonus points for correct evaluation

Lower than –2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Unfortunately in my game I did not spot the winning move. I just played the conventional 1...f6, thinking I would win because I have the famed opposition.

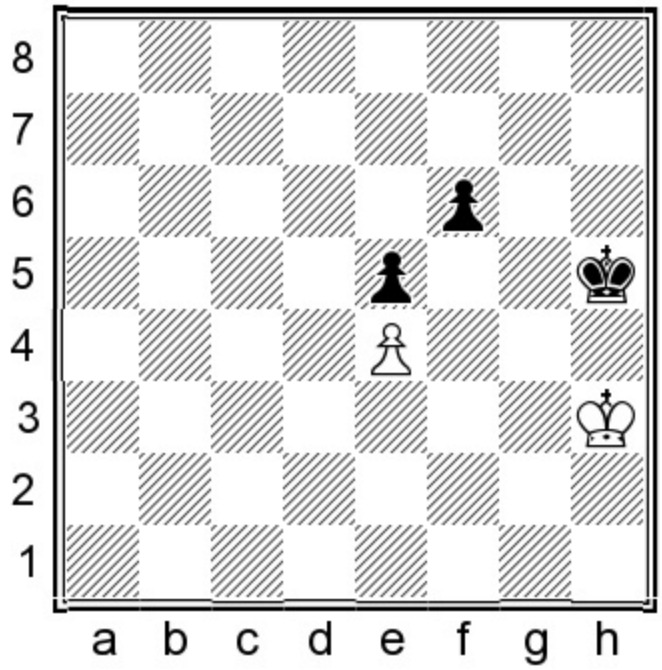
Adams Insight

Don’t turn off your tactical radar in the endgame. Initially it is logical to look to exploit Black’s dominant king position by aiming to take the pawn on g2 by quiet means, using the opposition to force the white king to give ground. However, it soon becomes clear that this is not sufficient to win, and that a pawn break is required. The lines after the winning move 1...g4 aren’t that hard to work out, once the concept occurs to you, but you have to be open to finding the idea in the first place.

Postscript

Not long after I finished analysing this endgame, I was watching some games online, and thought the following position resembled the 1...♔d3 line in the notes to the solution:

Stavanger 2020

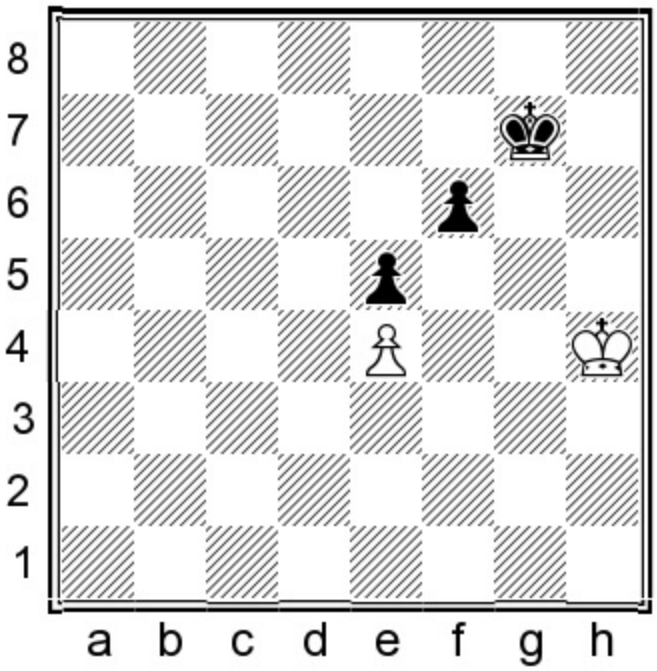


When I consulted my analysis, following my line after 1...♔d3 to its conclusion with 12.♔h3, we reach exactly the same position. Given the result of the game, perhaps it's worth looking a little deeper.

62...♔h6

Magnus, in his typical style, uses every last chance to tire his opponent before sending his king on a circuitous journey.

63.♔h4 ♔g7



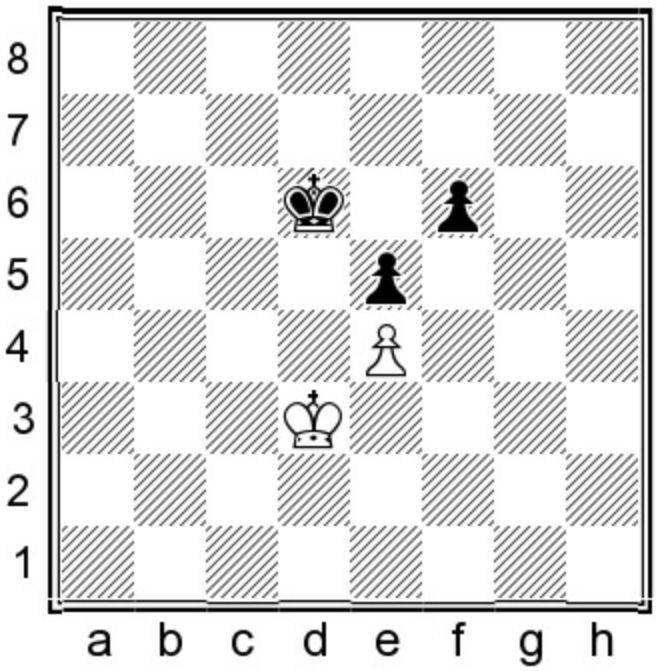
64.♔g3

Not 64.♔g4? ♔g6 when Black takes the opposition, and 65.♔h4 f5! wins.

64...♔f8

As there are no more options to try on the kingside, Magnus zigzags his king to the other side of the board.

65.♔f2 ♔e7 66.♔e2 ♔e8 67.♔e3 ♔d7 68.♔d3 ♔d6



69.♔c3?

69.♔d2! holds easily, as 69...♔c5 70.♔c3 ♔b5 71.♔b3 leaves Black out of ideas. Did Firouzja intend to play this and, being short of time, get confused and play the second move first?

69...♔c5

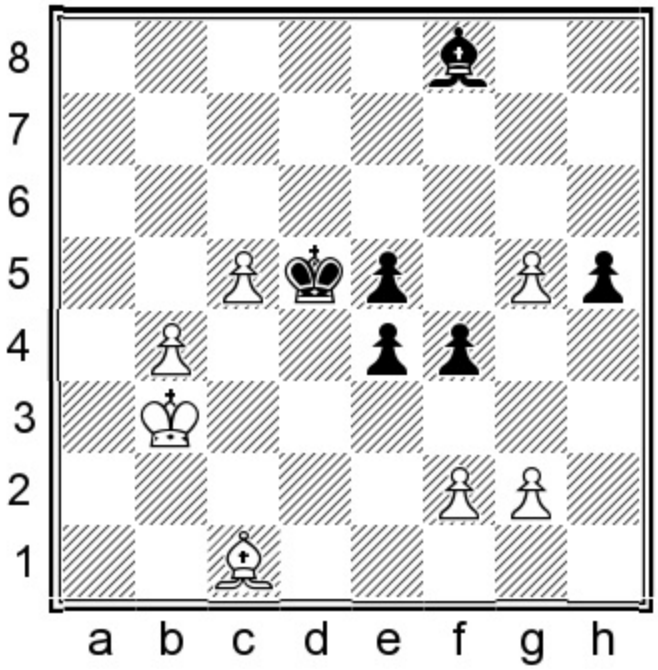
0–1

White resigned due to 70.♔d3 ♔b4 when the e4-pawn will soon be picked off.

Positions 25-28

Simple, or Simplified?

Puzzle 25



White to play – Level 10

Show/Hide Solution

Puzzle 25 – A Puzzle-Like Puzzle Solution

Anonymous
Elo 2305

00:30 This is a dangerous bishop-and-pawn endgame. White has to go for a tactical solution. White has three passed pawns. And there are no opposite-coloured bishops.

01:20 Let's think...
02:00 Actually, the first move I have to check is 1.b5. However, after this, I don't think that White can win with precise play by Black.
03:00 Black can also create his own passed pawn. 1...h4 followed by 2...f3, and his h-pawn queens.
03:30 Actually, the plan of 1...h4 and f3 is really dangerous. We need to stop that.
04:15 Let's look at 1.g3.
05:00 1.g3 is good. It stops ...h4, and now White can slowly and surely convert.
05:30 1.g3 e3 2.fxe3? f3 and I have to resign
06:00 1.g3 e3 2.♗xe3 and now Black can play, say, 2...fxe3 3.fxe3 e4 and draw.
07:00 It has to be noted that White is in no risk of losing with 1.g3, and I can play it anytime. However, I still want to look for a win.
09:00 1.b5 ♔xc5 2.♗a3† wins.
09:30 What about 1.b5 ♗xc5 2.♗a3!?... No. This doesn't work.
10:00 ♗a3 seems a good move in some lines. What happens if I play it immediately? 1.♗a3 h4 2.c6 ♔xc6 3.b5† ♔xb5 4.♗xf8 f3 5.gxf3 h3 Black queens first, and has at least perpetual.
11:00 If I take his pawn on e5, I could stop his h-pawn from queening.
13:30 Let's try 1.♗b2.
15:00 1.♗b2 h4 2.c6 ♔xc6 3.♗xe5 This looks much better than the previous lines. And I would be a pawn up.
16:00 This position is complicated. If I were in time trouble, I would play 1.g3. But as it is a puzzle, I will analyse 1.♗b2 deeper.
20:30 1.♗b2 h4 2.c6 ♗d6 3.g6 ♔e6 4.b5 f3 5.gxf3 h3 6.b6 h2 7.c7 and I promote with check.
23:00 In an actual game, I would stop analysing here and play 1.♗b2 and say White is probably winning.

(Thinks for a few more minutes.)

26:00 The best move is probably **1.♗b2**.

Evaluation: White has good chances of winning. (+1.5)

Keith Arkell
Elo 2429

00:15 I'm a pawn up, but Black has a very awkward threat. 1...h4! Followed by ...f3!.
00:40 This is a HUGE problem.
01:00 How do I save the game? Black is threatening ...h4. For instance, 1.♗d2 h4. This ...h4 idea is a major problem.
01:30 How to deal with 2...f3? After that, the h-pawn queens.
01:50 I can't go over with my king. 1.g3 I am trying to save the game.
02:40 If I go 1.g3 e3 2.♗xe3, that may be a defence.

03:30 2.♗xe3 fxe3 seems to hold. I could also use 1.c6 as a deflection to allow time for other moves.
04:20 The only two candidate moves I see are 1.g3 and 1.c6.
04:50 Let's try 1.c6 ♔xc6 2.♔c4 h4. Now I can throw in 3.b5† but this doesn't work.
Ah – hang on! After 1.g3 e3 2.♗xe3 fxe3 3.fxe3 Black's bishop is tied to the g-pawn.
And if he moves his king towards it: 3...♔e6 4.c6 and I feel as though the white pawns cannot be stopped.

(Thinks for another 3 minutes.)

07:50 1.c6 first is too slow – it doesn't seem to work. I am going to settle for 1.g3.

1.g3

08:32 Evaluation: Totally winning (>+3.5)

Julio Granda
Elo 2630

00:20 The first move I am thinking of is 1.♗e3. Oh! But wait! 1.♗e3 h4!
01:45 Yes, 1...h4 and ...f3 is very uncomfortable.
02:00 So, for now at least, I have to play 1.g3.
02:30 1.g3 ♗g7 2.♗e3!? is strong.
03:00 Probably in response to 1.g3 Black has to play 1...e3 2.♗xe3 fxe3 3.fxe3 and the black king cannot advance forward.
03:15 The question is how to evaluate this position.
03:30 I think 1.g3 is the move that has to be played. I think it gives White a decisive advantage.

1.g3

Evaluation: White is winning.

Michael Adams
Elo 2701

00:45 White is a pawn up. But 1...h4, and 2...f3 queening, wins for Black. So White has to be alert and deal with this threat.
02:00 1.c6 ♔xc6 2.♔c4 h4 3.b5† King moves, maybe to b6. 3...♔b6 4.♔d5 to attack the pawns – but now 4...f3! wins.
02:20 Can 1.b5 be a possibility? Black just takes 1...♗xc5
03:00 1.g3 e3! has to be played. 2.♗xe3 fxe3 3.fxe3 looks like the main line, and White may even be winning.
05:45 1.g3 e3 2.♗xe3 fxe3 3.fxe3 e4 With the idea of ...♗g7 and ...♗e5 to control White's passed pawns seems like the critical line.
06:40 Other options: 1.g6 h4 2.b5 But it seems Black can again play 2...f3 and White does not queen

in time.
07:30 1.♗b2 h4 2.c6 ♔xc6 3.♗xe5 looks good for White.
08:00 1.♗b2 ♗g7 and Black should be okay.
09:00 1.g3 to neutralize the pawns might be the best answer.
09:45 The main line is 1.g3 e3 2.♗xe3 fxe3 3.fxe3 e4 and I am struggling to evaluate that position.
10:00 The resulting position is unclear, but White is in no danger of losing.

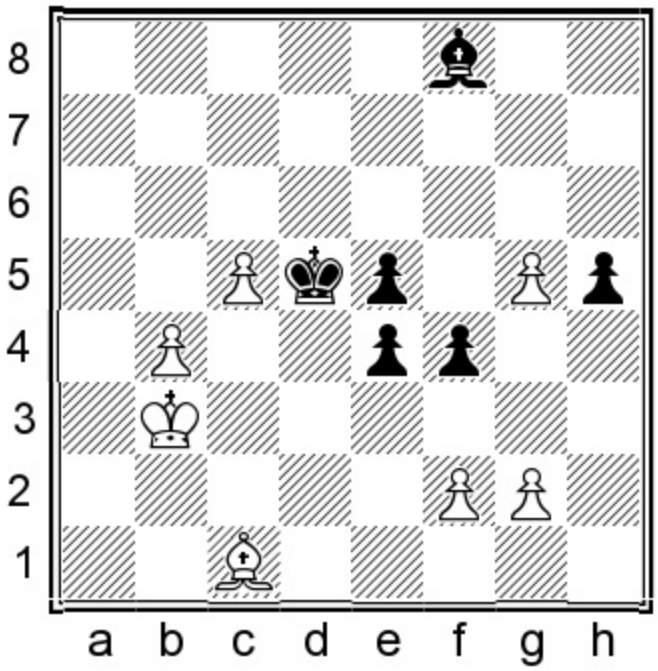
1.g3

Evaluation: +1.0

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2018



Although White is a pawn up, with three handy passers of his own, Black has the potential to give the h-pawn a clear run to the line. Hence, White needs to calculate precisely how to prevent this, as his king is too far away to help.

1.♗b2!

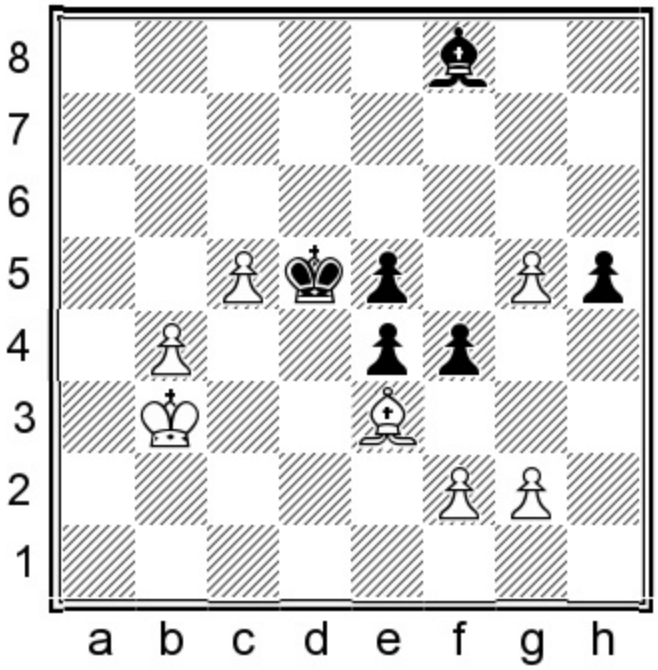
The anonymous solver was the only participant to work out that this is the best move in this tricky endgame, due to some determined calculation. Still, I think 1.g3 is a very decent practical choice, preventing any disastrous outcomes and guaranteeing at least a draw with upside potential, as it forces Black to find some difficult moves in order to secure half a point. After 1.♗b2, on the other hand, the morass of variations is fascinating, but the lines frequently hinge on a single tempo. Often

both sides acquire a new queen, making those variations especially difficult to calculate cleanly.

Before we get to those details, here is a summary of White's other tries:

1.♗e3??

Julio thought of this clever idea and then quickly realized the problem with it: Black is unfortunately not forced to take the bishop.



1...h4!

1...fxe3?? 2.fxe3 neutralizes the black pawns and allows White to take over. The extra pawn on e5 compared to 1.g3 actually hurts Black by impeding the bishop. 2...h4 3.g6 ♗g7 4.♔a4 ♔c6 5.♔a5 ♔b7 (5...♗f8 6.♔a6+–) 6.b5 ♗f8 7.c6† ♔c7 8.♔a6 ♗g7 9.b6† ♔xc6 10.b7 White wins.

2.g6

Other moves lose in the same way.

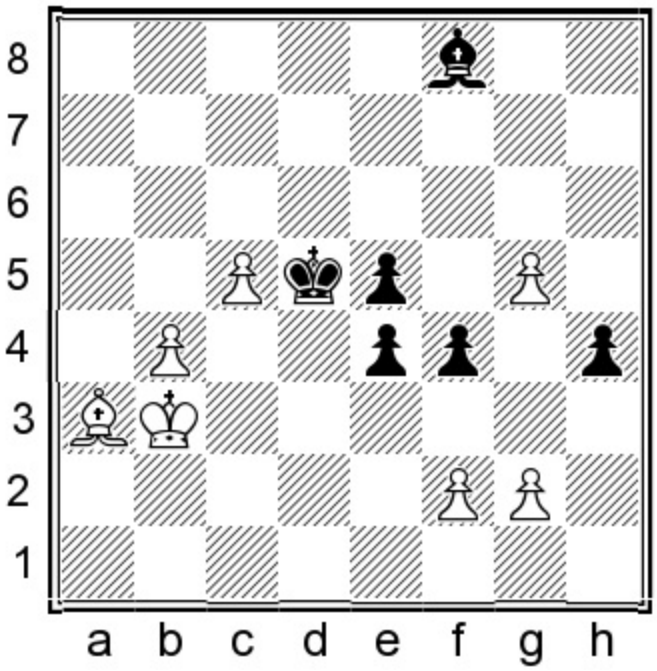
2...f3 3.gxf3 h3 4.fxe4† ♔e6 5.f4 h2

The only pawn that matters is the black one that is promoting.

As we saw in the line above, White has to hurry. Another inadequate move is:

1.♗a3?? h4

Black will clear the way for the h-pawn to touch down. The exact details are exceptionally difficult to work out, but it is clear that Black is on the better side. Once you have seen that the h-pawn is unstoppable and White is not queening first, that should be reason enough to dismiss this line. However, for those who are interested in seeing the details of how Black can overcome the most stubborn defence from here, I have included my full analysis below.



2.b5

2.c6 ♔e6!–+ leaves White with no good defence against ...f3 – but note that 2...♔xc6? 3.b5† ♔xb5 4.♗xf8 f3 5.gxf3 h3 6.g6 h2 7.g7 h1=♕ 8.g8=♕ only leads to a draw.

2...f3

2...♗xc5?? 3.g6 wins for White.

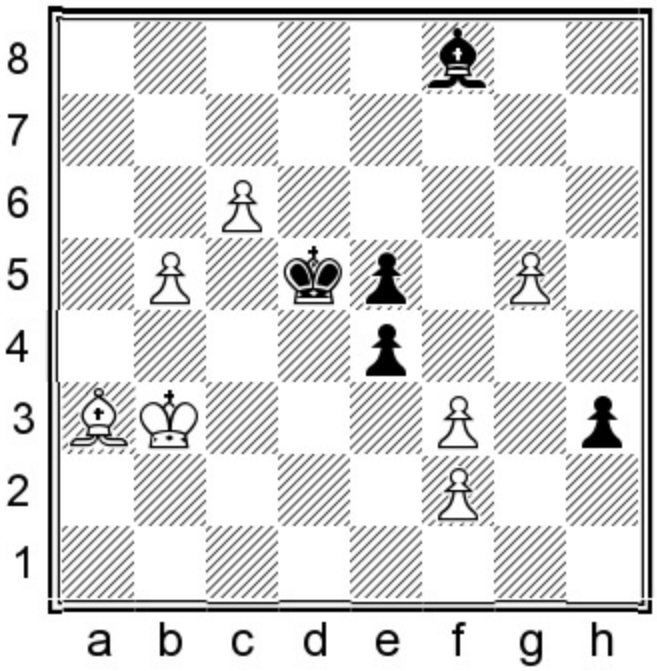
2...e3? 3.fxe3 h3 4.gxh3 f3 allows White to escape with a draw: 5.c6 ♔e6 6.b6 f2 7.b7 f1=♕ 8.b8=♕ ♕d3† 9.♔b2 ♕xa3† 10.♔c2=

3.gxf3

3.c6 ♔e6 4.gxf3 (4.c7 ♔d7 5.gxf3 h3 6.♗xf8 h2 wins) 4...h3 transposes below.

3...h3 4.c6

4.fxe4† ♔e6 5.b6 ♔d7! (After 5...♗xc5? 6.♗xc5 h2 7.b7 h1=♕ 8.♔b2! it looks like White is winning, but there is another twist: 8...♕h7! 9.b8=♕ ♕b7†! 10.♕xb7 stalemate!) 6.b7 (6.♗b2 ♗g7 7.b7 ♔c7 8.c6 h2 transposes) 6...♔c7 7.♗b2 ♗g7 8.c6 h2 9.♗a3 h1=♕ 10.♗d6† ♔xc6 11.b8=♕ ♕f3† 12.♔a4 (12.♔a2 ♕xf2† 13.♔a3 ♕f3† 14.♔a2 ♕e2† 15.♔a3 ♕d3† wins) 12...♕d1† 13.♔a5 ♕xd6–+ Black will eventually exploit the extra piece.



4...♔e6 5.♗xf8

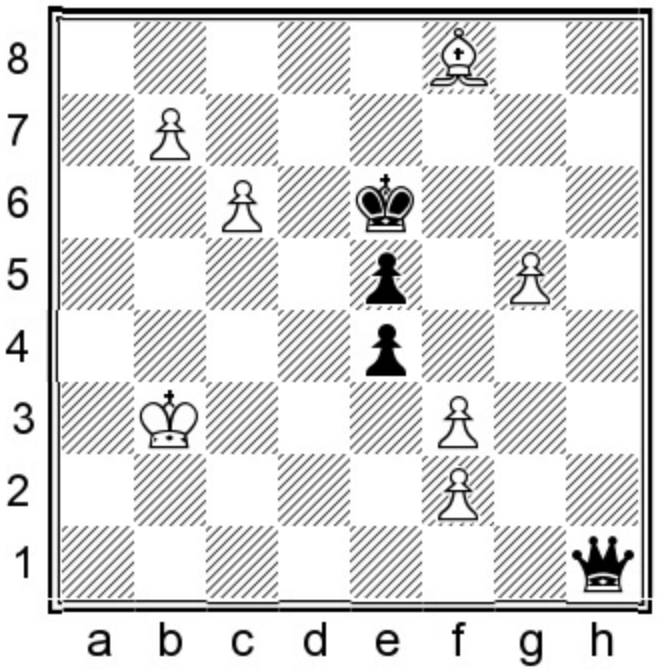
5.b6 h2 6.b7 h1=♕ 7.b8=♕ ♕xf3† wins.

5...h2 6.b6

6.g6 h1=♕ 7.g7 ♔f7 8.c7 ♕d1† 9.♔b4 ♕d7 10.b6 ♕c6 11.♔a5 exf3–+

6...h1=♕ 7.b7

Black has to be extremely precise to win from here, but the power of the queen is eventually sufficient.



7...♕f1!!

7...♕b1† 8.♔c4 exf3 9.♗b4=

7...♕xf3† looks tempting but 8.♔a4 e3 9.b8=♕ ♕xc6† 10.♔a3 exf2 11.♕b3† enables White to

draw by picking up the f2-pawn after either 11...♕d5 12.♕b6† or 11...♔f5 12.♕f7†.

8.fxe4 ♕b5†

8...♔f7? 9.g6†! ♔g8 10.g7 draws.

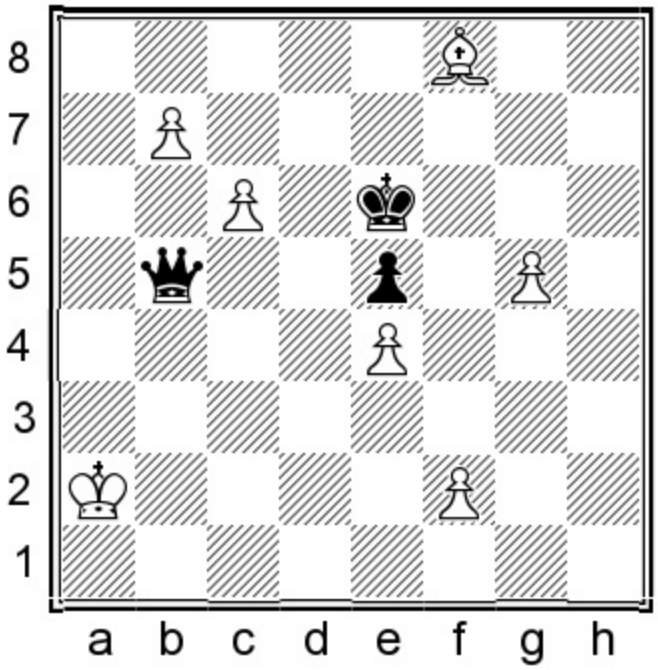
9.♔a2

The alternative is 9.♗b4 ♔f7 10.♔a3 ♔g6 11.♗e7 ♔h5 12.f3 ♔g6 13.♔a2 ♕b6! (13...♔f7? 14.♗c5 ♔g6 15.♗e3 ♔h5 16.♔a3=) 14.♔a3 ♔f7 and Black wins after:

a) 15.♗f6 ♔e6 16.♔a2 ♕b4 17.♔a1 ♕b3 18.♗g7 ♔d6 19.g6 ♕a4† 20.♔b2 ♕b5† 21.♔a1 ♔xc6–+

b) 15.♗d6 ♕a5† 16.♔b3 ♕b5† 17.♔a3 (17.♗b4 ♔g6 18.♔a3 ♔xg5–+) 17...♕d3† is a recurring problem for the defence.

c) Finally, 15.♗b4 ♕b5! leaves White without a decent move. For instance, 16.♗c3 ♔g6 17.♗d2 ♕d3† and Black wins.



9...♕c4†

9...♔f7? 10.♗c5 ♔g6 11.♗e3 This is the perfect place for White's bishop where it is secure.

11...♔h5 12.♔a3=

10.♔b2 ♕d4† 11.♔a3 ♕a7† 12.♔b3 ♕b6† 13.♔a3 ♔f7 14.♗b4 ♕b5!

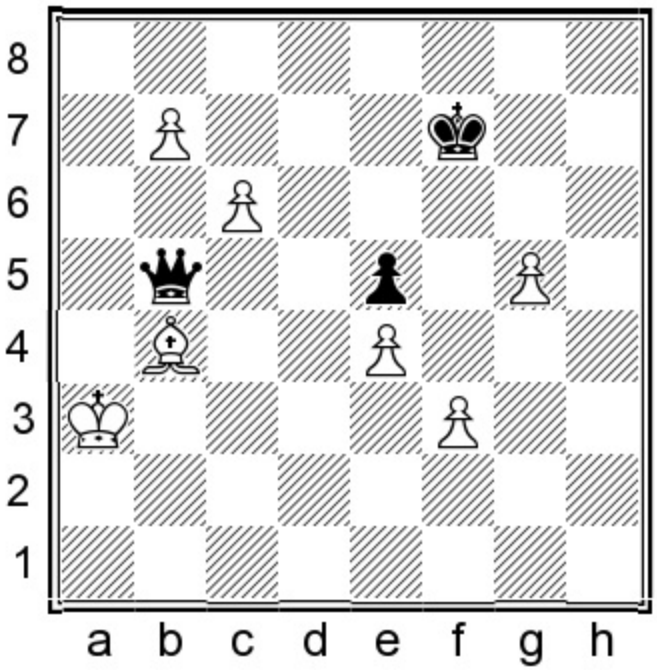
14...♔g6? 15.♗d2! draws again.

The text move sets up a zugzwang.

15.f3

15.♗d6? ♕d3† wins immediately.

15.f4 also doesn't help: 15...exf4 16.e5 ♕xe5 17.♔a4 f3 18.♗c5 ♔g6–+

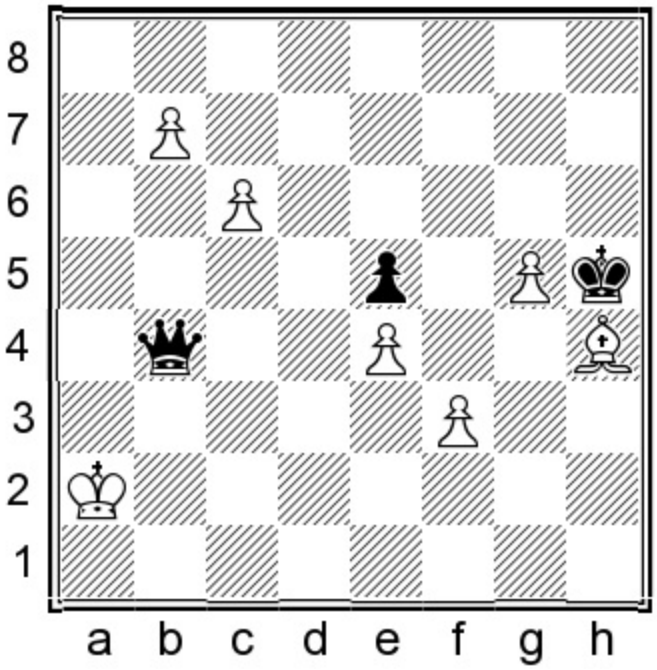


15...♕a6† 16.♔b3 ♕b6 17.♔a3 ♕b5

A handy triangulation.

18.♗e1 ♔g6 19.♗h4 ♔h5 20.♔a2 ♕b4!

20...♔xh4? 21.g6= is another surprising drawing line.



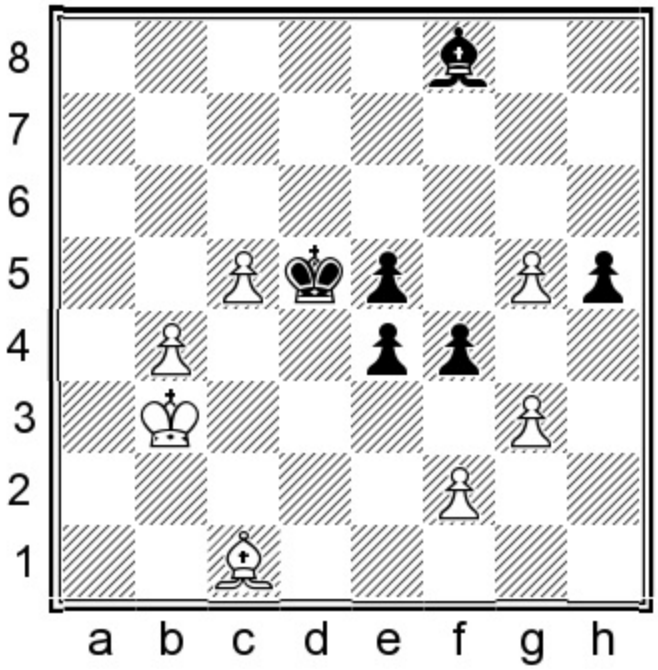
21.♔a1 ♔xh4 22.g6

Even here it's close, but Black wins with a precise sequence.

22...♕a3† 23.♔b1 ♕b3† 24.♔c1 ♔g3! 25.g7 ♔xf3 26.c7 ♕c4† 27.♔d2 ♕d4† 28.♔c1 ♕c5† 29.♔d2 ♕d6†–+

White must either walk into a mating net or allow a crucial pawn to fall with check.

The most worthy alternative to the main solution is:
1.g3!?



This is a tempting and logical option. White radically prevents Black's desired next move of ...h4, leading to a more clear-cut position. Several strong players including myself selected this move, and I suspect that they were also attracted to the greater sense of control and safety with this choice.

1...e3!

Other moves are too slow, and allow the extra pawns to tell.

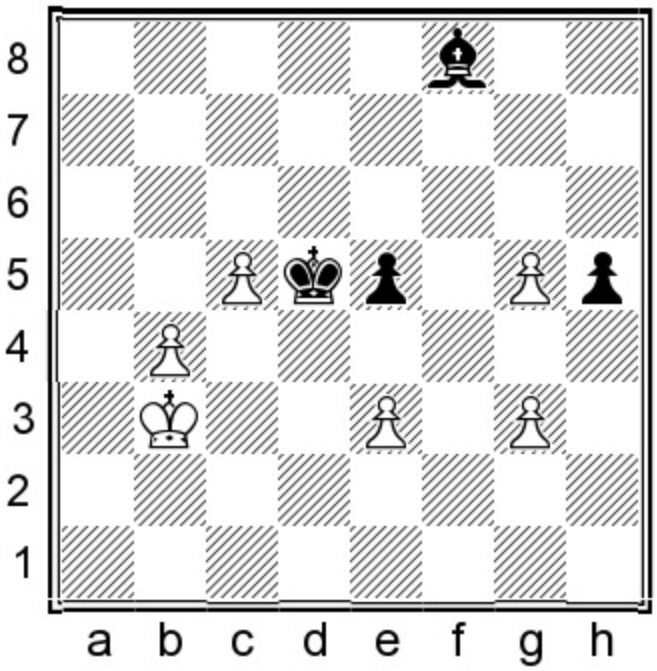
1...♗g7? is refuted by 2.♗e3!, which is absolutely deadly now that ...h5-h4 has been prevented.

2...fxe3 3.fxe3 ♗f8 Just like in the notes to the line above, the presence of an additional black e-pawn is of massive benefit to White, as Black's bishop is deprived of the key square on e5 where it eyes several sectors of the board. Black can only delay the advance of White's pawns. 4.♔a4 ♔c6 5.♔a5 ♗g7 6.♔a6 ♗f8 7.g6 ♗g7 8.b5† ♔xc5 9.b6+–

2.♗xe3!

Sacrificing the bishop is necessary, but White will have three dangerous pawns for it.

2...fxe3 3.fxe3



3...e4!

The only move to hold, giving the bishop a fine post on e5, where it will cover g7 and c7 and also target the pawn on g3.

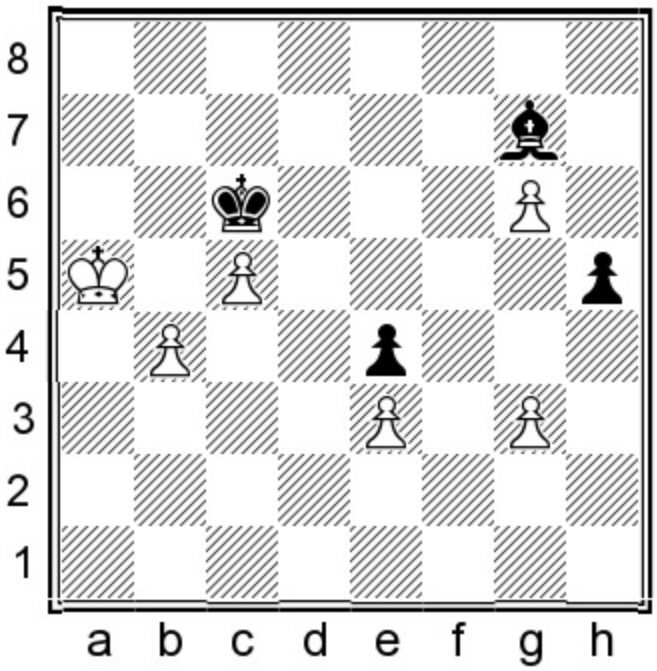
3...♔c6? 4.♔c4 would be utterly hopeless for Black.

3...♗g7? 4.e4†! ♔e6 (4...♔xe4 5.c6+–) 5.b5 ♗f8 6.♔c4 is another simple win for White.

3...♔e6? gives White several winning options. 4.c6 (4.♔c4 ♗e7 5.g6 ♔f6 6.b5 ♔xg6 7.b6 ♗d8 8.♔b5+– is equally convincing; there is also 4.e4!?+–, controlling some key squares and, once the black king commits to one side of the board, White will promote on the other.) 4...♔d6 5.b5 ♔c7 6.♔c4 White wins.

4.g6 ♗g7 5.♔a4 ♔c6 6.♔a5

The position is still quite tricky and it is not at all easy to realize from a distance that Black can hold due to some fancy footwork from the bishop.



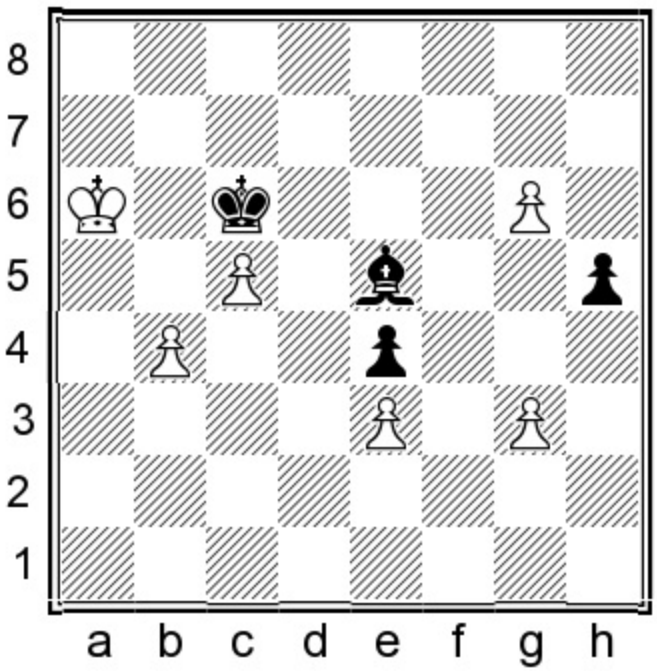
6...♗f6!

Black can also make other bishop moves along the diagonal, with the same idea of going to e5 next.

The major mistake would be: 6...♗e5? This seems reasonable, but the bishop must arrive on this crucial square at the right moment. 7.♔a6! establishes zugzwang and wrong-foots the bishop. For instance, 7...♗f6 8.b5† ♔xc5 9.b6 ♔c6 (or 9...♔d5 10.b7 ♗e5 11.g7 and the tempo loss with the bishop decides) 10.b7 ♗e5 11.g7 and White wins.

7.♔a6 ♗e5!

Now is the perfect time to occupy this key central post.



8.♔a7

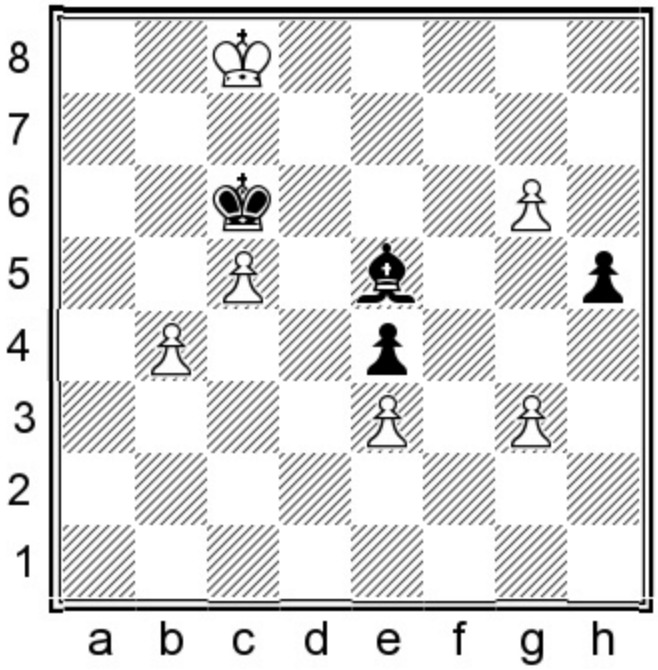
8.♔a5 repeats.

8.b5†?! is superficially tempting but no longer works, as the black king does sterling work to make it to the kingside in time. 8...♔xc5 9.b6 ♔d5 10.♔b5! White barely holds with this accurate move. (After 10.b7? ♔e6 11.g7 ♔f7 Black is just in time to cut off all the pawns and win the game.) 10...♔e6 11.♔c6 ♔f6 12.♔d5 ♗xg3 13.♔xe4 ♔xg6 14.♔f3 With a draw, due to Black having the wrong combination of bishop and rook's pawn.

8...♗c3 9.♔b8

9.b5†? ♔xb5–+

9...♗e5† 10.♔c8



10...♗f6!

Preventing the king from accessing d8 secures the draw.

11.♔b8=

Acquiescing to the draw is necessary. (11.b5†? ♔xb5 12.♔d7 ♔xc5 13.♔e6 ♗b2 14.♔f7 ♔c4 15.g7 ♗xg7 16.♔xg7 ♔d3 17.♔g6 ♔xe3 18.♔xh5 ♔f3 19.g4 e3 wins for Black.)

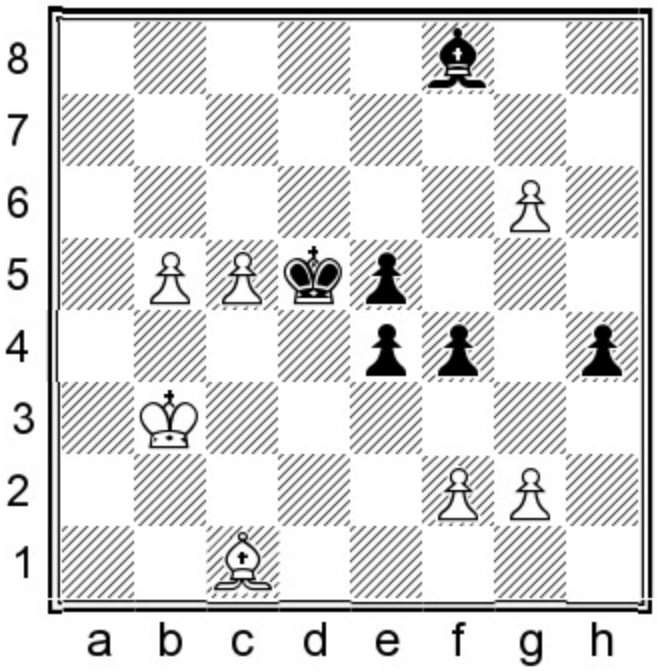
The other option worth mentioning is:

1.g6?!

This line is mind-bendingly complicated, as both sides concentrate on forcing their own pawns forward. However, it would seem to me to be a serious error of judgement to play this in a game. White risks much more than the limited winning chances he stands to gain.

1...h4 2.b5

The only move not to lose.



2...f3

2...e3!? is another option, when 3.fxe3 h3 4.gxh3 f3 5.e4† ♔xe4 6.c6 f2 7.c7 f1=♕ 8.c8=♕ ♕xb5† 9.♔a2 ♕a4† 10.♔b1 ♕b3† 11.♗b2 is a draw.

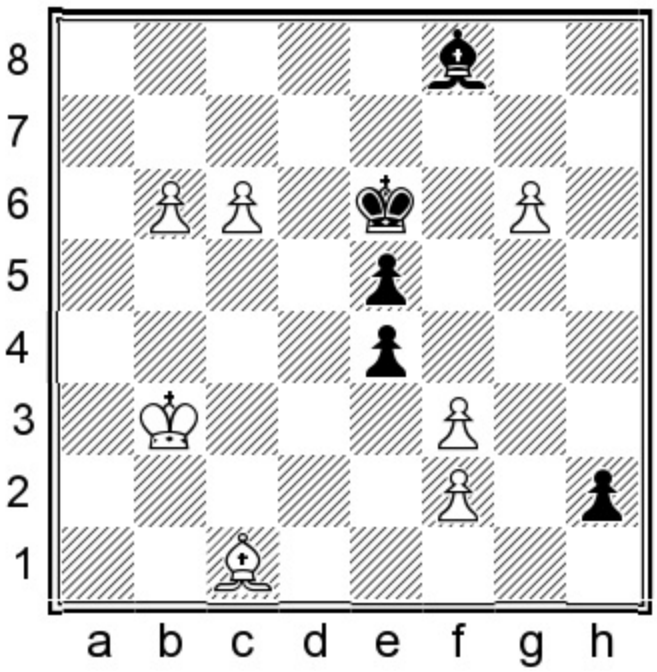
3.gxf3

3.c6 fxg2 4.c7 g1=♕ 5.c8=♕ ♕d1† 6.♔b2 ♕d4† 7.♔b1 ♕b4† 8.♗b2 ♕e1† is another possible draw.

3...h3 4.c6 ♔e6 5.b6

5.c7? ♔d7 wins for Black.

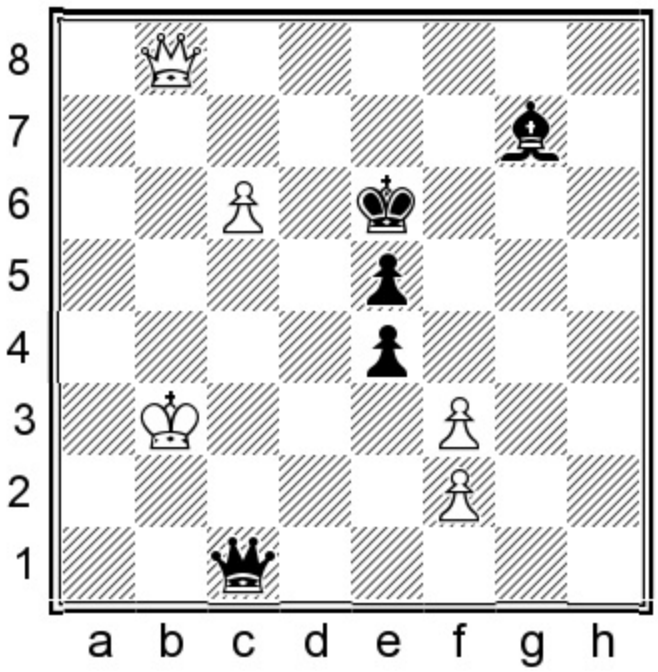
5...h2



6.g7!

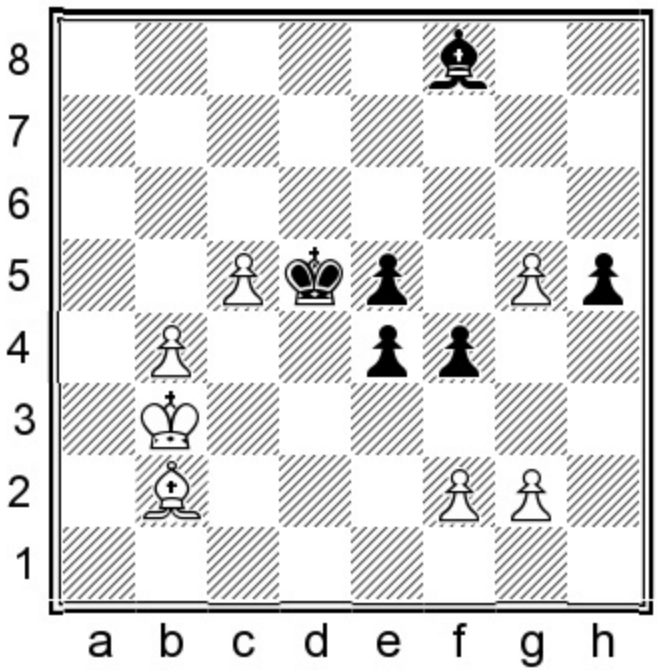
But not 6.b7? ♗d6 and Black wins.

6...♗xg7 7.b7 h1=♕ 8.b8=♕ ♕xc1



9.♕c8† ♔d6 10.♕d8† ♔c5 11.c7 ♕c4† 12.♔b2 ♕b4† 13.♔c2 ♕c4†

With a draw.



1...h4!

This is the most resilient defence, although the alternatives are by no means simple to assess.

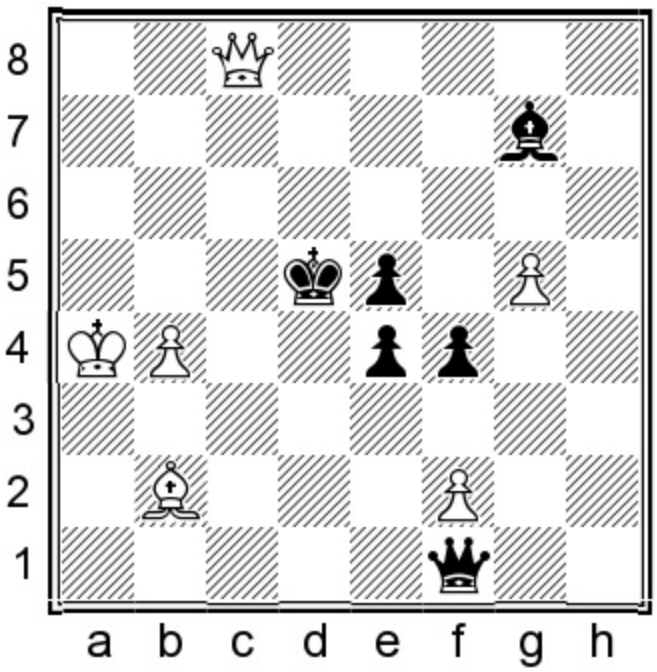
1...♗g7

I thought this was a good defence, but defending e5 has some drawbacks.

2.♗a3!?

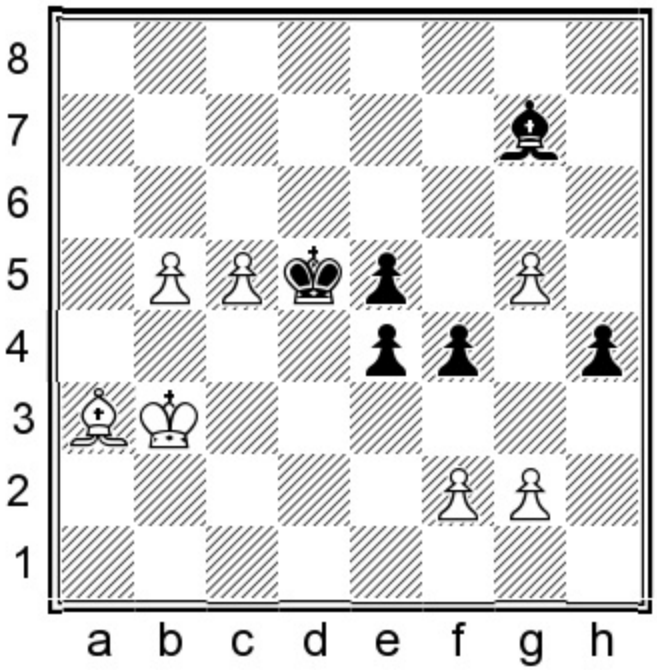
Preparing b4-b5 is rather an elegant solution. On the previous turn, this was a losing blunder; but now that Black's bishop is not in touch with the c5-pawn, it wins.

2.♔a4 is an equally valid route to victory: 2...h4 (2...♔c6 3.♗a3 h4 4.b5† ♔c7 5.♔a5 h3 6.b6† ♔c6 7.♔a6 hxg2 8.b7 g1=♕ 9.b8=♕ ♕f1† 10.♔a7+–; 2...f3 3.gxf3 exf3 4.♔a5 h4 5.♔b6 h3 6.c6 h2 7.c7 h1=♕ 8.c8=♕+–) 3.♔b5 h3 4.c6 (but not 4.gxh3? e3! when Black has enough counterplay) 4...hxg2 5.c7 g1=♕ 6.c8=♕ ♕f1† 7.♔a4!



White's king is much safer, and ♕g8† winning the bishop is threatened. 7...e3 (7...♕d1† 8.♔a5+–) 8.f3! ♔d6 (8...e2 9.♕d7† ♔c4 10.♕b5#) 9.♕d8† ♔c6 10.♕e8† ♔d6 11.♕g6† ♔d5 12.♕f7† ♔d6 13.♕xg7 ♕a6† 14.♔b3 ♕d3† 15.♗c3 ♕d5† 16.♔c2+–

2...h4 3.b5



3...f3

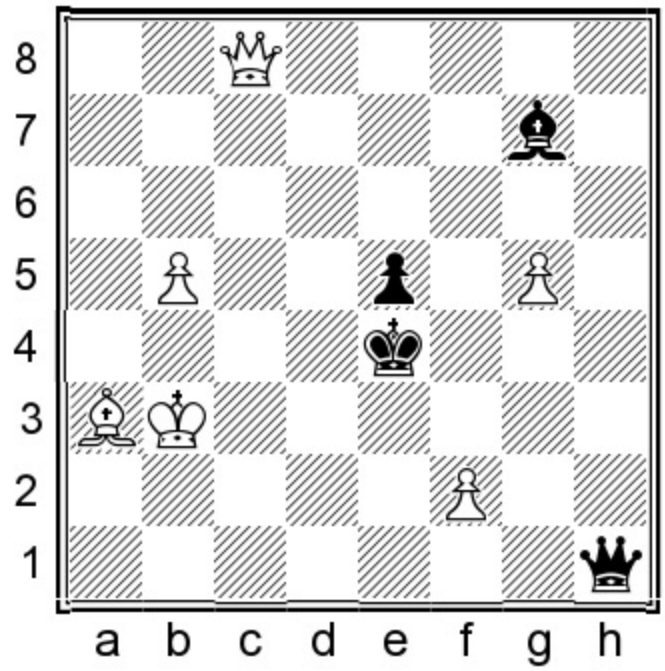
3...e3 4.fxe3 h3 5.gxh3 f3 gets close, but 6.e4† ♔e6 7.b6 ♔d7 8.b7 ♔c7 9.c6 f2 10.♗d6† wins for White.

3...h3 4.gxh3 e3 5.f3! (5.fxe3 f3 6.e4† ♔xe4 7.b6 f2 8.b7 f1=♕ 9.b8=♕ ♕b1† 10.♗b2+– also works) 5...e2 6.♗b4 e4 7.c6 exf3 8.c7 f2 9.c8=♕ f1=♕ 10.♕b7† White wins here too.

4.gxf3 h3

4...exf3 5.c6 ♔e6 6.b6 e4 7.c7 ♔d7 8.♗d6 wins.

5.fxe4† ♔xe4 6.c6 h2 7.c7 h1=♕ 8.c8=♕



8...♕b1†

8...♕d1† 9.♕c2† makes things easier.

9.♔a4 ♕d1† 10.♔a5 ♕d2† 11.♗b4 ♕a2† 12.♔b6 ♕xf2† 13.♗c5

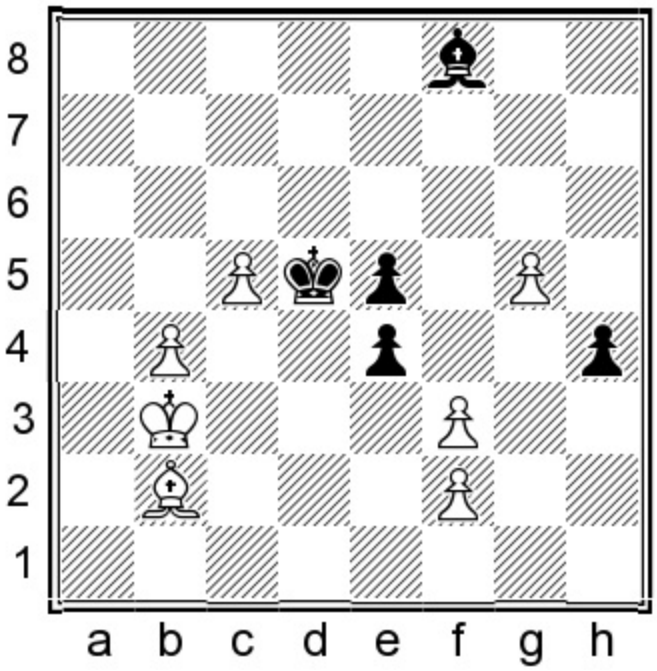
White wins.

Another fascinating variation is:

1...f3 2.gxf3

2.g3?? e3 wins for Black.

2...h4



3.fxe4†!?

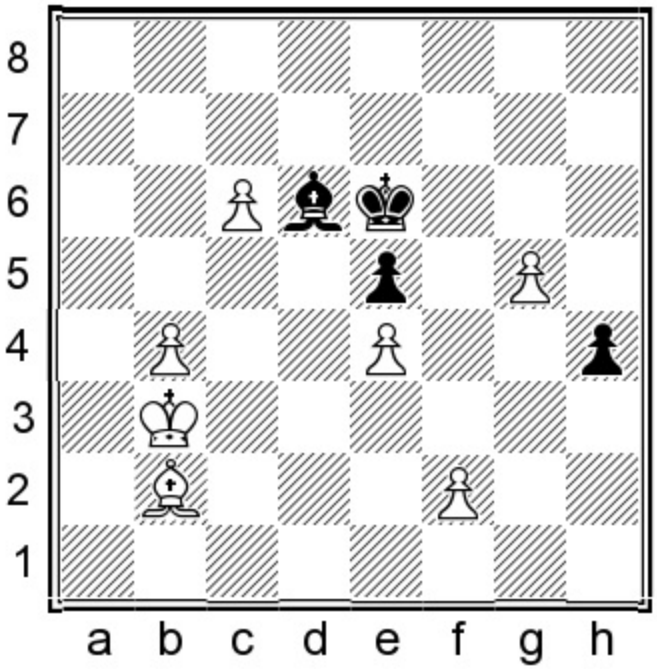
3.c6 ♔xc6 4.♗xe5 transposes to the main line.

3...♔e6 4.c6 ♗d6!

4...h3? 5.c7 ♔d7 6.♗xe5 wins easily.

4...♗g7 5.b5 h3 6.b6 h2 7.b7 h1=♕ 8.b8=♕ ♕d1† 9.♔a2 ♕a4† 10.♗a3 ♕c2† 11.♕b2 ♕xc6 12.♕b3† ♔d7 13.♕f7† also wins for White.

After the text move, all looks lost for White as the h-pawn can't be stopped, but there is an amazing twist:



5.f4!! h3 6.fxe5 h2

Alternatives are no better:

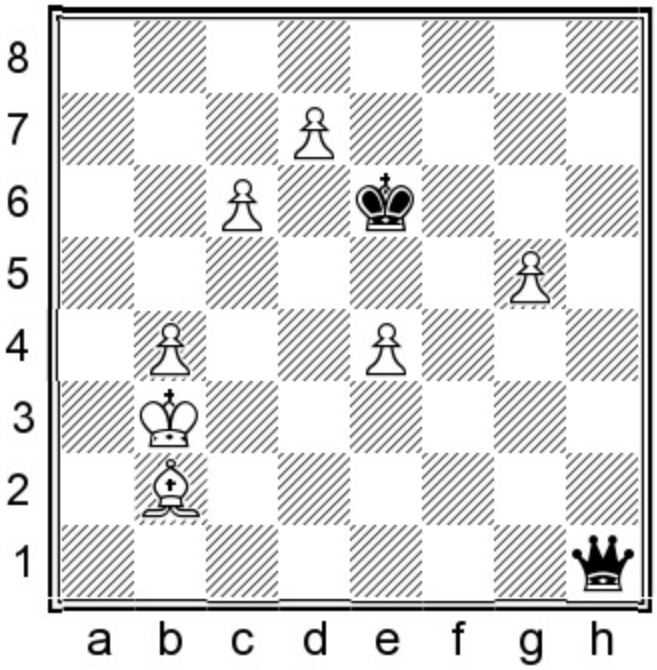
6...♗c7 7.g6 h2 8.g7 ♔f7 9.e6† ♔g8 10.e7+–

6...♗f8 7.g6 h2 8.c7 ♔d7 9.e6† ♔c8 (or 9...♔xc7 10.♗e5†) 10.g7 ♗xg7 11.e7 and White wins.

7.exd6 h1=♕ 8.d7

A rather unusual situation has arisen, where the bishop and five pawns overcome the queen!

Perpetual check ideas won't work out:

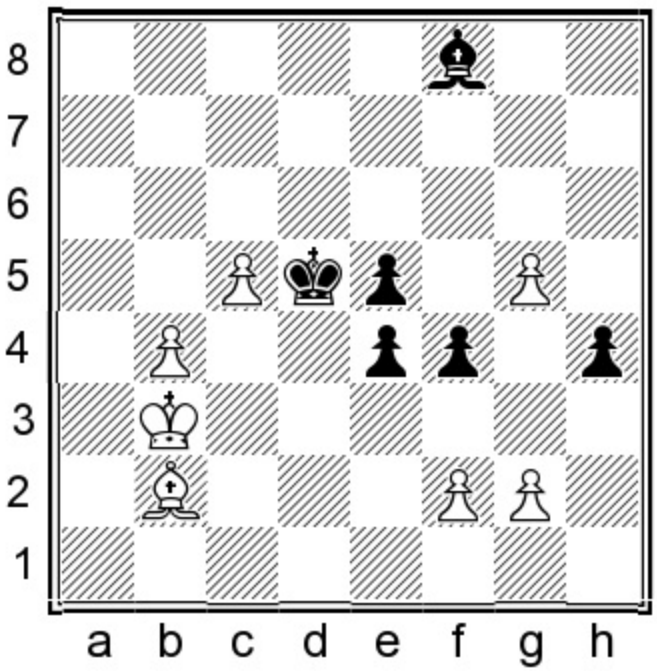


8...♕d1†

8...♕f3† 9.♔a4 ♕d1† 10.♔a5 and the checks have run out.

9.♔c4 ♕e2† 10.♔c5 ♕e3† 11.♗d4 ♕xg5† 12.♔b6 ♕e7 13.♗c5 ♕d8† 14.♔b7+–

Followed by ♗b6.



2.c6!

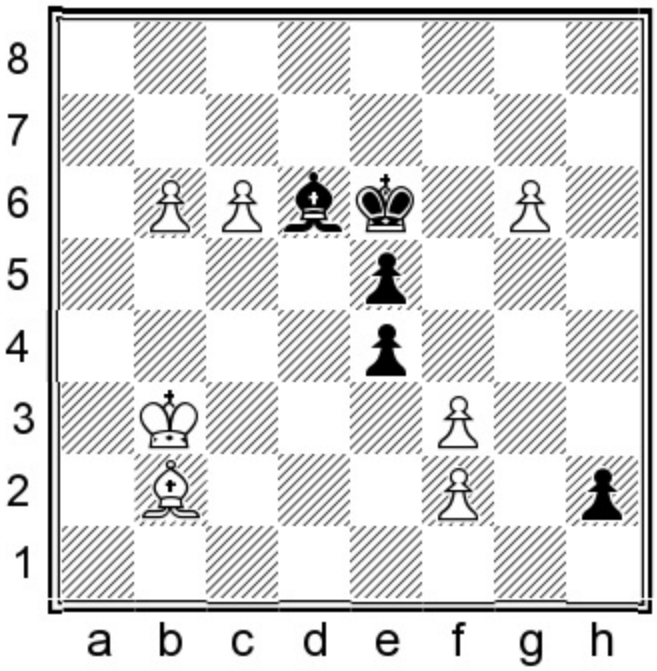
This is the only winning move – as well as the only move not to lose.

2.g6?? is no good, for instance: 2...♗g7 (there is also 2...f3!? 3.gxf3 ♗g7 4.fxe4† ♔c6 5.f4 h3 6.♗xe5 h2 7.♗xg7 h1=♕ and Black wins) 3.♗a3 f3 4.gxf3 h3 5.fxe4† ♔c6 6.♔c4 h2 7.b5† ♔c7–+White is too slow.

2...♔xc6

2...♔d6 3.♗xe5† ♔xe5 4.c7+– is easy.

A more interesting alternative is: 2...♗d6 3.g6 ♔e6 4.b5 f3 5.gxf3 h3 6.b6 h2 The anonymous solver gave this line correctly up to this point. Best play continues:



7.g7! (7.c7? was the suggestion, but it proves less effective after 7...♔d7 8.g7 h1=♕ 9.c8=♕† ♔xc8 10.g8=♕† ♔d7 when White only has a small edge.) 7...♔f7 8.c7 h1=♕ 9.g8=♕† ♔xg8 10.c8=♕† ♔f7 11.♕d7† ♗e7 12.b7 ♕xf3† 13.♔a2 White wins.

3.♗xe5

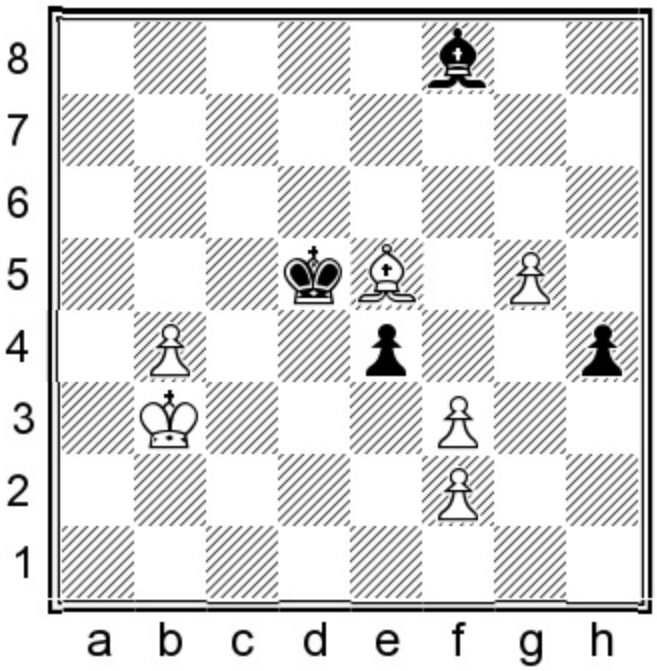
The bishop controls h2, so White shouldn't be risking anything from here.

3...f3 4.gxf3

4.g4?? e3–+ would lead to a reversal of the result.

4...♔d5!

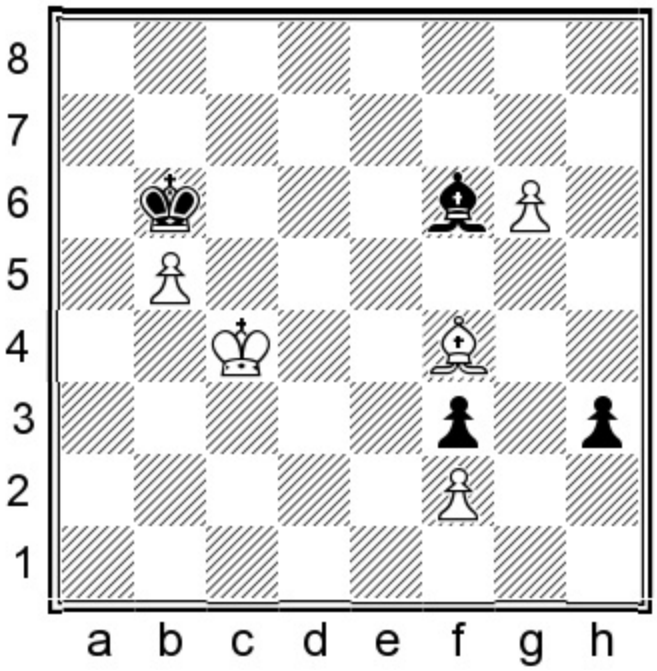
4...exf3 is met by 5.♔c4 when White's king has taken a dominant role. A logical continuation is 5...h3 6.g6 ♗g7 7.♗g3 ♗f6 8.♔d3 ♔b5 9.♔e4 ♔xb4 10.♔xf3 ♔c5 11.♔g4 ♔d5 12.♔xh3 ♔e6 13.♔g4 ♗b2 14.f4 when White consolidates the two extra pawns and wins.



5.♗c7!

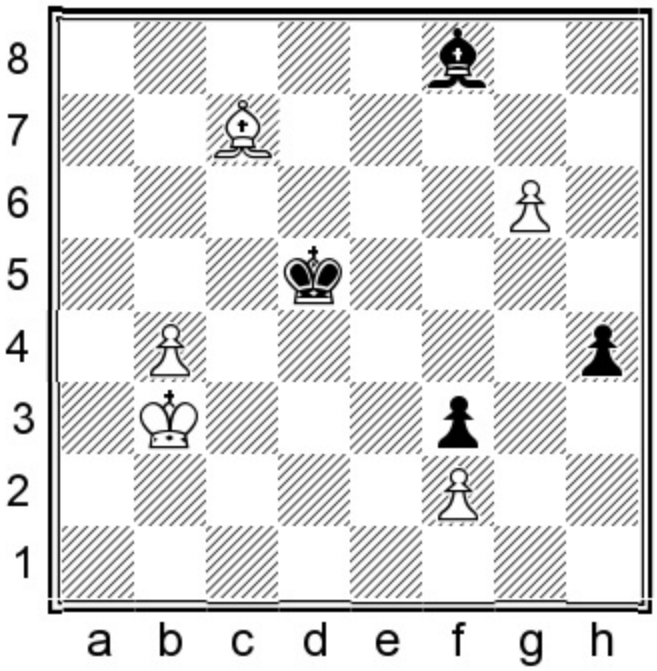
The only winning move.

5.♗h2? fails to achieve the desired outcome after 5...exf3 6.g6 h3 7.b5 ♔c5 8.♔a4 ♔b6 9.♗e5 ♗g7 10.♗f4 ♗f6 11.♔b4 ♗g7 12.♔c4 ♗f6 and Black is just in time to draw, for instance:



13.♔d5 ♔xb5 14.♔e6 (14.♔e4 ♔c4 15.♔xf3 ♔d5 16.♗h6 ♔e6 17.♔g3 ♗d4 18.♔xh3 ♔f6 19.g7 ♔f7=) 14...♗d4 15.♔f7 ♔c4 16.g7 ♗xg7 17.♔xg7 ♔d3 18.♔f6 ♔e2 19.♗g3 h2=

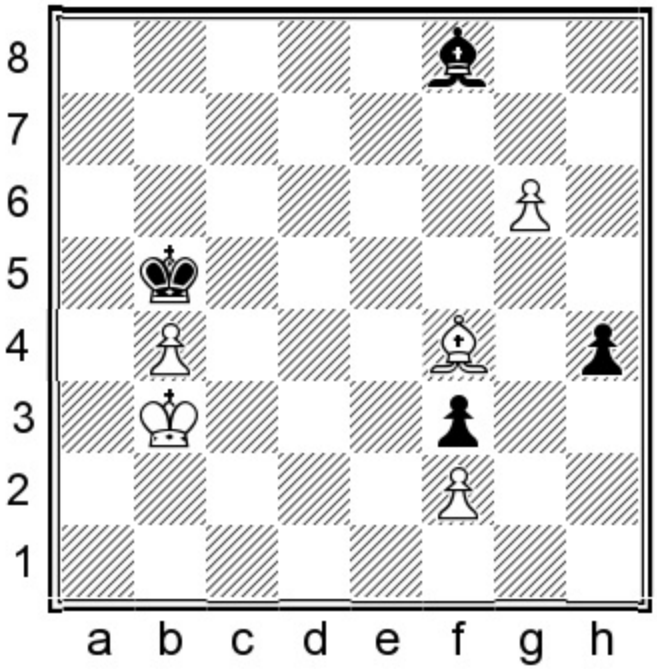
5...exf3 6.g6



6...♔c6

6...h3 7.b5! ♗g7 8.b6 ♔c6 9.♔c4 shows the point of putting the bishop on c7: with the bishop and pawn defending each other, White gains crucial time. After 9...♗f6 10.♔d3, or 9...h2 10.♗xh2 ♔xb6 11.♔d5, the win is easy.

7.♗f4 ♔b5



8.♔c2!

There is no time to waste, as 8.♗e5? h3 improves Black's situation considerably.

8...h3

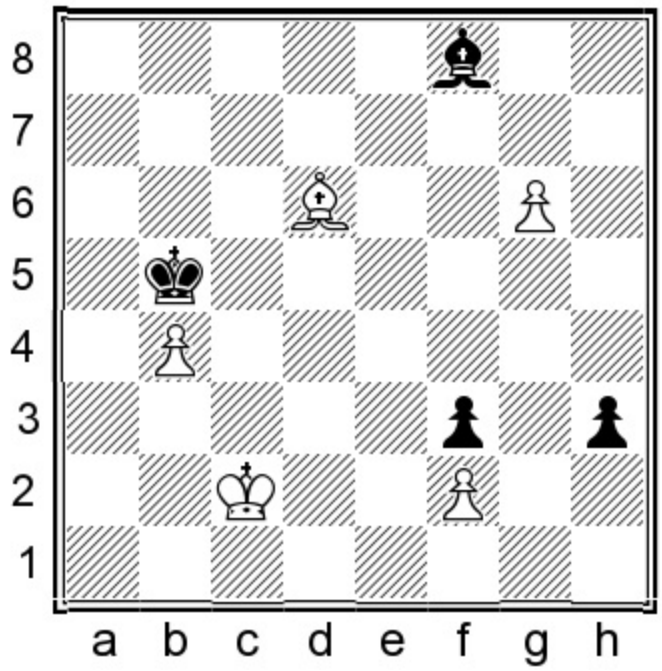
The justification for White's previous move is that 8...♔xb4? isn't possible due to 9.♗d6†! ♗xd6 10.g7 and White wins.

8...♔c4 9.♔d2! ♗xb4† 10.♔e3 ♗f8 11.♗e5 ♔d5 12.g7 ♗xg7 13.♗xg7 h3 14.♔xf3 is another nice winning line.

9.♗d6!

Another precise move.

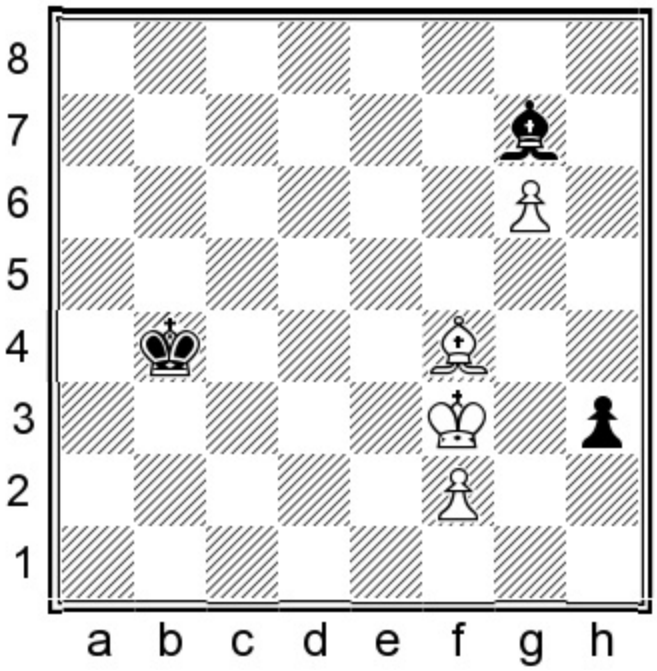
9.♔d3? ♔xb4 10.♔e3 ♔c4 11.♔xf3 ♔d5 only draws.



9...♗xd6!

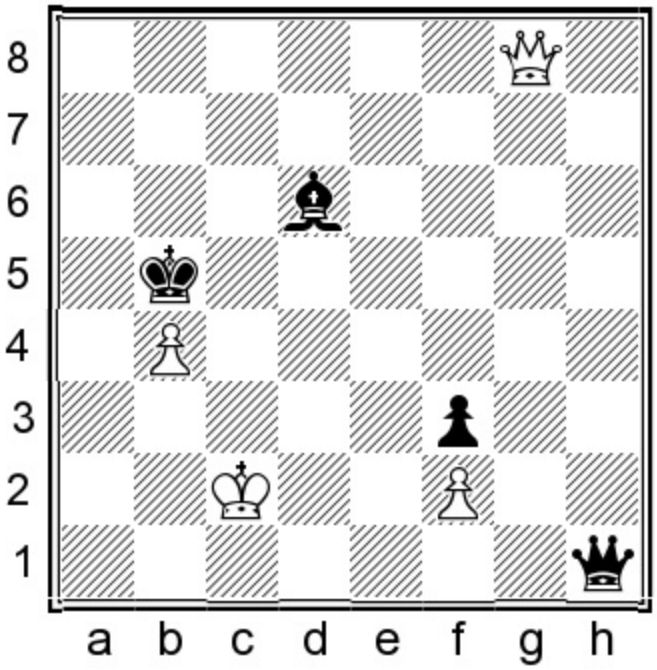
Now both sides will make a new queen.

After 9...♗g7 10.♔d3 ♔c6 11.♗f4 ♔b5 12.♔e4 ♔xb4 13.♔xf3 it may look like the black king will make it to the kingside in time, but it falls just short:



13...♔c4 14.♔g4 ♔d5 15.♔xh3 ♔e6 16.♔g4 ♔f6 17.♔h5+–

10.g7 h2 11.g8=♕ h1=♕



12.♕d5†!

Picking up the bishop.

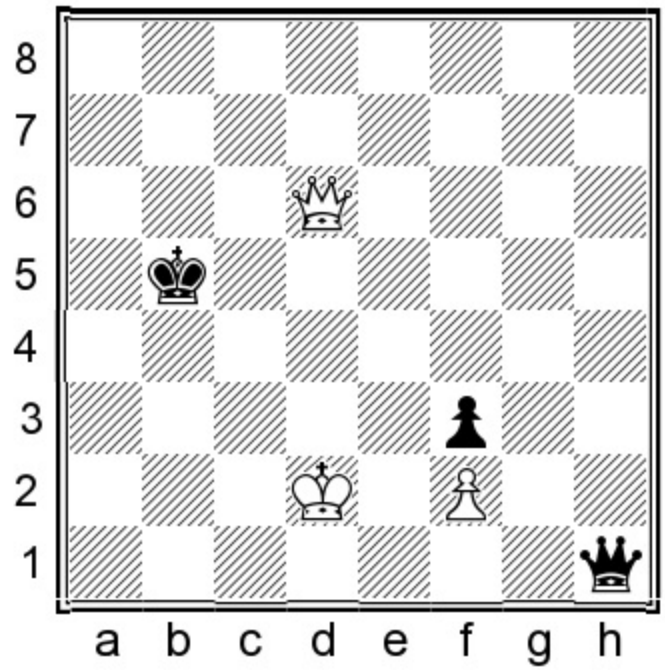
12...♔xb4

12...♔a4? 13.♕a5 is mate.

13.♕xd6† ♔b5

13...♔c4 14.♔d2! is similar to the main line: White's king will head to e3 and the f3-pawn will eventually be captured. If 14...♕f1? then 15.♕a6† wins the queen.

14.♔d2



I would have happily bet that this is a draw, but the tablebase confirms that White is winning, as the f3-pawn will be annexed and Black's king is unable to get into a suitable position to blockade White's f-pawn. There is also no realistic chance to counterattack the pawn on f2.

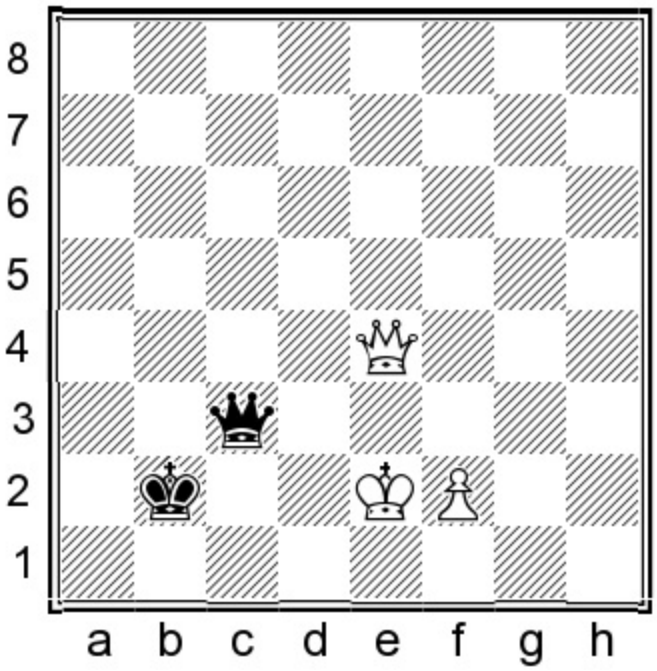
14...♔c4

14...♕f1? 15.♕d3† wins trivially.

15.♔e3 ♔b3 16.♕d5† ♔b2 17.♕xf3

White collects the pawn and should win with precise play, although a lot of work remains. A plausible line of play is:

17...♕c1† 18.♔d4 ♕d2† 19.♔e5 ♕g5† 20.♕f5 ♕e7† 21.♔f4 ♕h4† 22.♔e3 ♕e7† 23.♕e4 ♕a3† 24.♔e2 ♕a6† 25.♔f3 ♕f6† 26.♔e3 ♕c3† 27.♔e2



The checks have finally dried up, and White is ready to begin advancing the f-pawn. Well done to all of you who got to this point – I think you have a bright future in chess!

Scoring for Puzzle 25

Best move	Score	Evaluation
1.♗b2	**10**	**+1.3**
1.g3	5	+0.4
1.g6	4	0
1.Others	1	

If you chose 1.g3, and saw the critical line 1.g3 e3 2.♗xe3 fxe3 3.fxe3 e4!, award yourself 3 extra points!

This puzzle is very difficult to score and, in our opinion, requires human intervention. 1.♗b2 is the only winning move so it receives top marks. 1.g3 and 1.g6 are both drawing moves but the former scores higher, as White has a draw in hand plus decent practical chances to win, whereas after 1.g6 Black has more than one natural way to reach equality, and White's practical winning chances are no greater than Black's. The bonus points are intended to give credit for spotting Black's best defence after 1.g3, and for correctly assessing the resulting position as offering winning chances for White.

Bonus points for correct evaluation

Between +0.3 and +0.59	1 point
Between +0.6 and +0.89	2 points
Between +0.9 and +2.49	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

When I first encountered this position, I felt White was winning as I have passed pawns everywhere. However, when I saw Black's threat, I had to concentrate my efforts on looking for a draw. I was happy and pleased with myself for finding 1.g3! which avoids defeat.

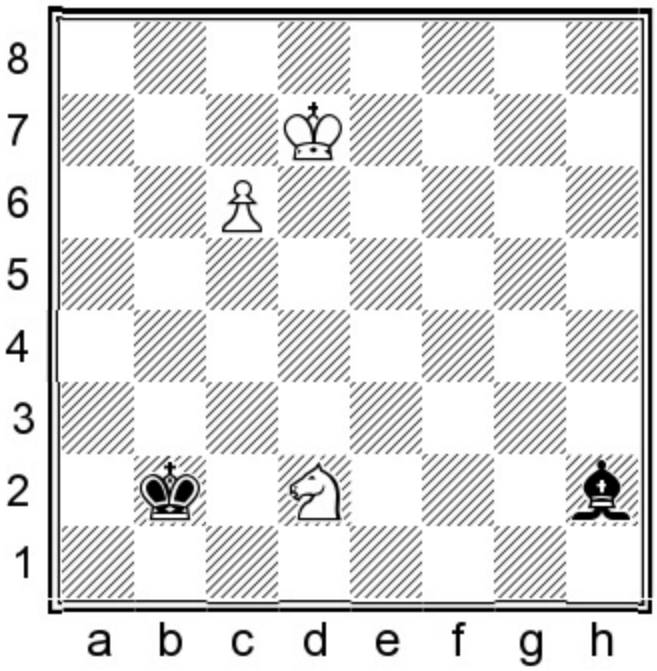
However, when I consulted Stockfish about the game, it immediately pointed out another move with a +2.4 advantage to White. As it turns out, this advantage dissipates to +1.0 as it dives deeper into analysis. Nevertheless, White has at his disposal a puzzle-like move that retains the advantage and puts Black on the back foot.

Adams Insight

This is an extremely complicated position, as evidenced by the queen endgames that showed up in the analysis, and there is a case for settling on an option that gives reasonable clarity. Hence GMs were generally tempted by the move Phil played in the game, the practical 1.g3, as they could see it guarantees a draw with some upside, although no one was sure quite how much!

The objectively best move 1.♗b2 was much harder to work out to a conclusion, due to the multitude of complicated lines with mutual passed pawns advancing and sometimes promoting on both sides – a scenario where a mistake in calculation could have fatal consequences, and it would be easy to miss something. The anonymous solver provided several concrete lines to justify his choice of 1.♗b2 though. Great job!

Puzzle 26



White to play – Level 1

Show/Hide Solution

Puzzle 26 – The Assiduous Knight

00:05 I can play 1.c7 and if the bishop takes my pawn then I am a knight up.
00:10 I can still checkmate with my king and knight.
(I tell Theo that it is not pos

Theo (age 8)
unrated

sible to mate with only king and knight. I let him try, and he discovers it is indeed not possible. Clock paused while he tries this out.)

(After thinking for 20 minutes and realizing he cannot drive the bishop away from the diagonal...)
22:00 I've got an idea! So, look! First I go to c4 with the knight. Then the king has to move because it's check. Then I can block on d6. If he takes the knight with his bishop. Probably he will. Then I take and now you can move the pawn up the board two squares to get a queen and win.
22:00 1.♘c4†

Evaluation: White wins.

Ioan (age 10)
unrated

00:08 Looking for a pawn promotion.
01:07 The pawn can't promote immediately because of the capture.
01:12 1.♘c4†
01:36 1.♘f3 attacking the bishop.
02:46 *(Player spends some time working out where the bishop can go after 1.♘f3)*
07:05 (*Player changes to 1.♘f1 and continues looking for ways to drive the bishop away*)
07:46 1.♘f3

Evaluation: Not sure how to evaluate the position.

Oscar (age 8)
Elo 985

00:30 The bishop is defending c7.
00:50 I can't do c7 straight away as he will take my pawn. And I can't give checkmate with only the knight. I need to get the bishop out of the way.
01:20 Maybe 1.♘f3 attacking the bishop. Or 1.♘f1. The bishop would have to move.
02:40 I've seen a check. I am going to see if it works.
03:20 If I play 1.♘c4† the king has to move and then I can play 2.♘d6 to stop the bishop guarding c7.

1.♘c4†

Evaluation: White is winning.

Anshul Swamy (age 11)
Elo 1300

00:10 I'll try to get the black bishop away from the diagonal.
00:20 Ah, yes! I found it!
00:26 I can block it with my knight. 1.♘c4† then 2.♘d6 would block the bishop from the diagonal and I could queen the pawn.
00:28 1.♘c4† is my final move.
Examiner: *"And your evaluation of the position?*
Anshul: "What do you mean?"
Examiner: *"If you were to play this move against a computer, what evaluation do you think the computer will give you?"*
00:35 Anshul: "Mate in 13".

Michael Adams
Elo 2701

The problem for White is that he can't play 1.c7 as Black has 1...♗xc7. And although you win the bishop, you can't give mate with knight and king alone. So to win, you need to use the knight to block the bishop.
If 1.♘e4 with the idea of ♘d6, Black has 1...♗b8! which creates a problem, as 2.♘d6 no longer blocks off the bishop.
00:18 Fortunately we have a 'time-saver' here, where the knight can play 1.♘c4†, forcing the king to move and then play 2.♘d6, blocking the bishop's path to the pawn.

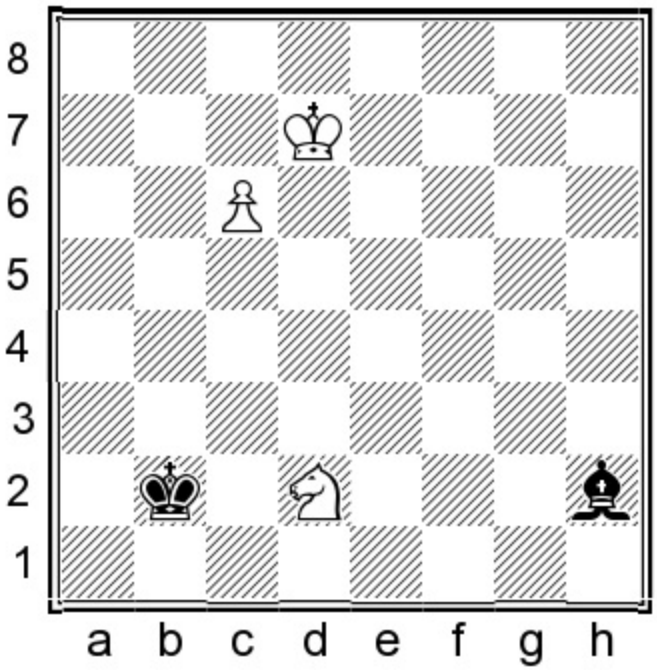
1.♘c4†

Evaluation: White wins**.**

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



A simple tactical idea ensures promotion, a good reminder that staying alert is often very important to playing endgames well.

1.♘c4†!

The only way to promote the pawn. The check gains crucial time to enable the knight to block out the bishop's influence.

1.♘e4?

This move, with the same idea, does not work due to:

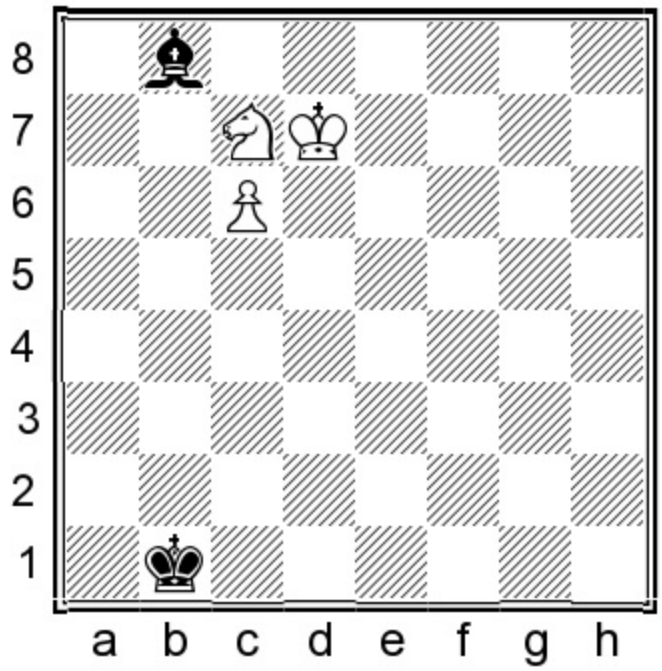
1...♗b8!

I was curious if White had any practical chances here, and did find one way for Black to go wrong, but in general this position shows the power of the bishop on an open board.

2.♘d6 ♔a1!?

Black doesn't actually need his king to do anything to draw, although 2...♔c3 is simpler.

3.♘b5 ♔b1 4.♘c7



4...♗a7!

This draws easily enough.

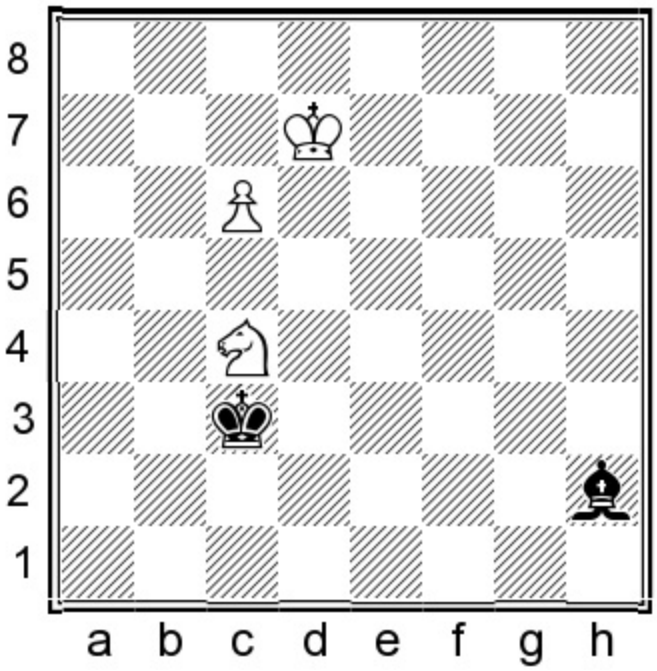
a) 4...♔a1? is too casual. 5.♔c8 ♗a7 6.♘b5 Black's bishop is forced on to a short diagonal and can't keep control of the key squares. 6...♗b6 (6...♗g1 7.♔d7 ♗b6 8.♘d6 ♔a2 9.♘c4 forces the bishop away) 7.♘d6 ♔a2 8.♘c4 ♗f2 9.♔d7 ♗g3 10.♘d6 White wins.

b) 4...♔a2 is also sufficient but more complex: 5.♔c8 ♗a7 6.♘b5 ♗b6 7.♘d6 ♔b3= and the king covers c4.

5.♔c8 ♗g1=

The bishop returns to h2.

1...♔c3



2.♘d6!

The knight blocks the path of the bishop and White wins.

Scoring for Puzzle 26

Best move	Score	Evaluation
1.♘c4†	**10**	**+3**
1.Others	1	+0.1

Bonus points for correct evaluation

More than +2.5	**3 points**
Any other evaluation gets	0 points

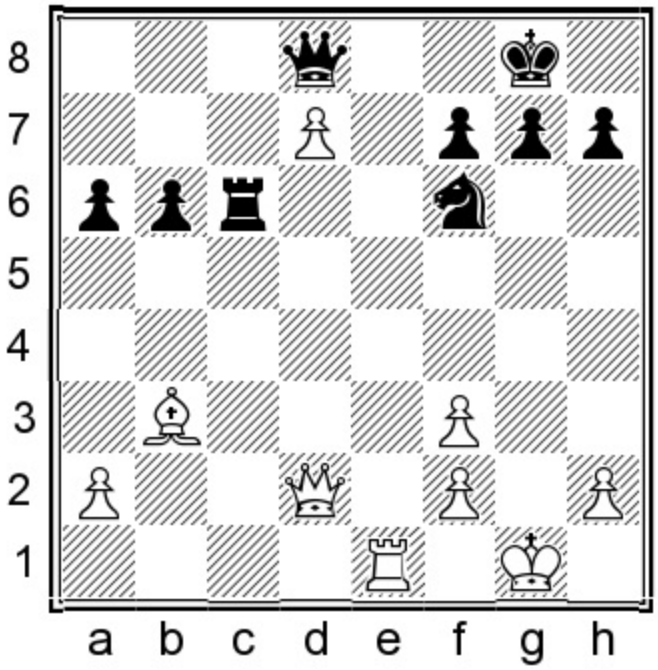
Puzzle Commentary by Phil

This puzzle shows the benefit of practice. Experienced players, who play in chess clubs, find the move almost instantly, within seconds. Amateur players, who play the game at home but do not compete regularly, can take up to ten minutes before finding the right move. The solution of this puzzle reveals the important role played by knowledge and experience in chess.

Adams Insight

The solution to this one is pretty clear, once spotted. However, it's worth looking a bit more at the interesting lines after 1.♘e4 ♗b8, where Black holds quite comfortably, to appreciate the power of the bishop on an open board. Therefore White really needs to seize the immediate tactical chance.

Puzzle 27



White to play – Level 7

Show/Hide Solution

Puzzle 27 – Seventh Heaven

Jorge Granell
Elo 1673

01:40 I'm looking at ♗xf7† possibilities to see if there is something there. 1.♗xf7† ♔xf7 and now I have to look for another check.
05:00 2.♖e8 ♘xe8 3.♕d5† and I win the rook on c6.
08:30 Let me revise the whole line. 1.♗xf7† ♔xf7 2.♖e8 Attacking the queen. 2...♘xe8 3.♕d5† He can cover with 3...♖e6. Oh, that line is no good.
10:05 I have another variation: 1.♖e8† ♘xe8 2.♕d5, threatening mate. Oh, but he has 2...♖e6.
12:45 Okay, another idea: 1.♗d5 The idea is that if he takes my bishop I have ♖e8†!. 1.♗d5 ♖c7, to take the pawn.

14:45 Then maybe 2.♗xf7†. Uff, this is hard. No, I don't see this working.
17:00 Oh, I think I have seen it now!
1.♕d5! ♘xd5?? 2.♖e8† and mate next move.
So, 1.♕d5 attacking the rook, and if he moves the rook, I play 2.♕xf7† and win.
27:00 Let's see alternatives. 1.♕d5 ♖e6 2.♖xe6 fxe6 3.♕xe6† and he can only play 3...♔h8. Not sure what to play next, but White is better.
Final move: **1.♕d5**

Evaluation: White is better.

Agnieszka Milewska
Elo 1677

00:05 The pawn on d7 is the key feature of the position.
00:47 1.♖e7 is the first move I am thinking of. Black cannot take with the queen as I promote.
00:57 My first thought is 1.♖e7, but Black may not take. A few days ago I lost a similar position where the king moved to f8 and trapped my rook.
02:25 Let me check 1.♖e8†. He can't take with the queen as that loses. But he can take with the knight.
03:20 1.♖e8† ♘xe8 2.♕d5 threatening mate.
03:30 No. Black can play 2...♖f6.
03:40 What about 2.♗xf7† first? 1.♖e8† ♘xe8 2.♗xf7† ♔xf7.
04:10 No. It's not good.
05:35 Let's see 1.♕f4.
06:00 1.♕f4 is quite good as well. But he has 1...♖c7.
07:20 This is quite hard.
08:12 1.♗xf7† ♔xf7 I don't really see any advantage after this.
09:25 I would move 1.♖e8† with a big advantage for White as he has a strong attack after this move.

1.♖e8†

Evaluation: +3.0

Nathanael Paul
Elo 1993

00:20 There is a potential weakness on f7 and e8. Black is threatening to take on d7.
00:44 Yeah, I'd play 1.♕d5. If Black takes then 2.♖e8† wins.
01:30 1.♕d5 ♖e6 2.♖xe6 wins.
02:10 So 1.♕d5 looks like a clear win to me.

Evaluation: +10.0

Julio Granda
Elo 2630

00:40 My first impression is that 1.♕d5 should be winning. But this is a mirage, because of 1...♕xd7.
01:00 1.♖e7 looks much stronger, with the idea of ♗xf7† followed by ♖e8†.
Now let's see if Black can counter this in any way.
(Thinks in silence for a while.)
03:30 No Black can't.

1.♖e7

Evaluation: White is totally winning.

Michael Adams
Elo 2701

00:30 First question: is Black threatening to take on d7?
01:00 Black is threatening to make a useful move like 1...h6, or 1...g6.
01:40 If 1.♖d1 ♖c7 could be a good reply.
02:00 White could consider 1.♕d5, but then comes 1...♕xd7.
02:50 White could also play 1.♖e5, or 1.♗d5. But these moves are not clear.
03:30 1.♕f4 is another option, threatening 2.♖e8†. But not sure that is possible.
05:45 1.♖e7 is another option.
06:15 Yeah, 1.♖e7 looks good. 1.♖e7 ♖c7 2.♗xf7† should be winning.
I don't see any defence for Black. White is winning by a lot!

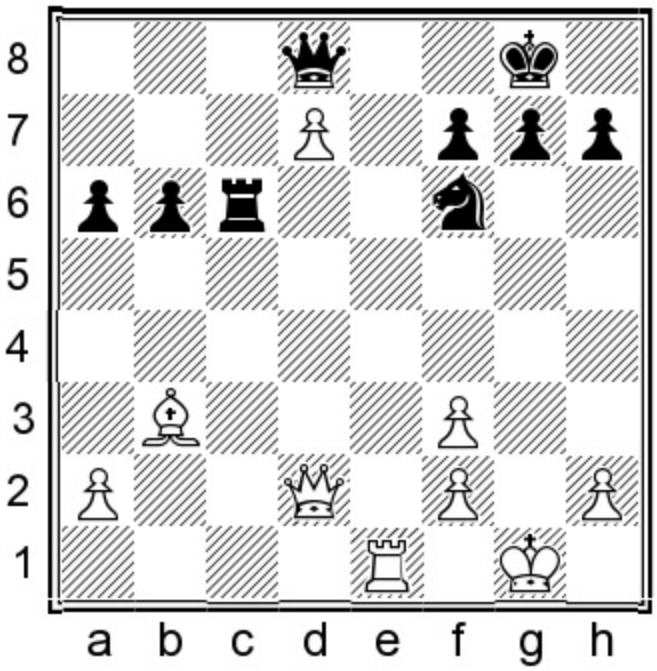
1.♖e7

Evaluation: +6.5

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



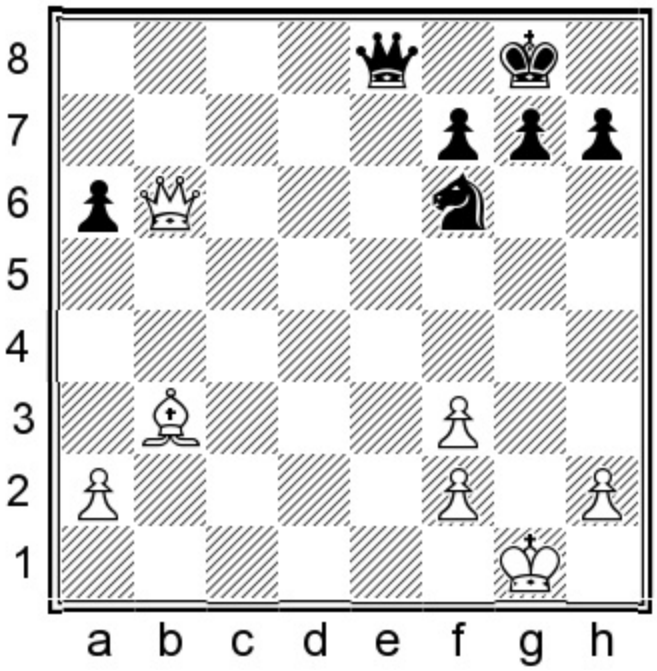
Another purely tactical position. The passed pawn on the seventh combined with White's potent bishop hint that there should something available. Quiet moves aren't good enough here. Finding the first move isn't that easy – although once spotted its strength is clear.

1.♖e7!

It took me and Keith some time to see the possibility – but once seen, it is clearly the best. Despite appearances the rook can't be captured, and this will cause the f7-point to cave in. This may not be so obvious for players of every strength: Agnieszka originally came up with this correct idea, before sadly rejecting it in favour of a losing continuation.

1.♗d5?? ♕xd7!–+ leaves White with nothing.

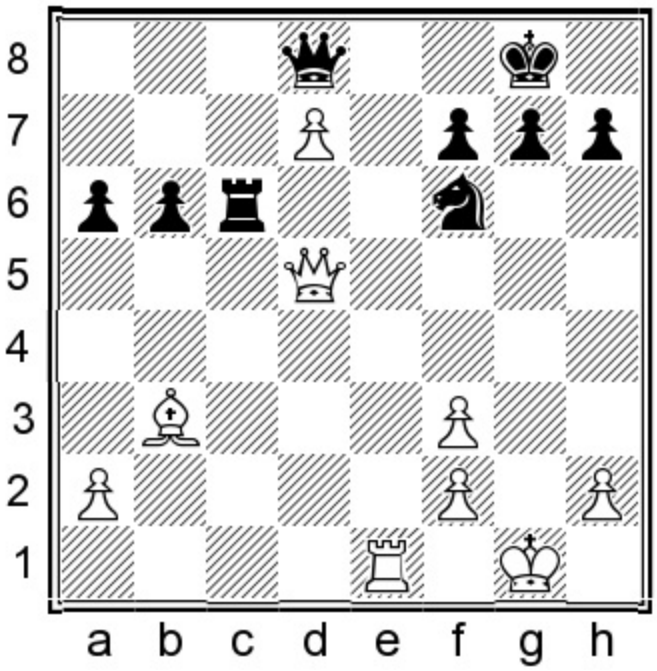
1.♕f4? can safely be met by 1...♕xd7, and after 2.♕b8† ♕c8 3.♕xc8† ♖xc8 4.♖e7 h5 the endgame is equal.
1.♖d1? ♖c7 rounds up the pawn on d7. The best that White can do is: 2.♕f4 ♖xd7 3.♖xd7 ♕xd7 4.♕b8† ♕e8 5.♕xb6



White will pick off the a6-pawn and emerge with a material advantage, but Black has no cause for complaint after either 5...♘h5 6.♕xa6 ♘f4 or 5...♕c8 6.♗c4 g6 7.♕xa6 ♕f5, with good compensation in both cases due to White's unsafe king.

There are two other significant alternatives which caught the attention of several of the panel of solvers:

The line 1.♗xf7†?? ♔xf7 2.♖e8 ♘xe8 3.♕d5† received quite a lot of attention, although it is a hard to understand the idea behind giving up so many of White's pieces, as the d-pawn remains blockaded. 3...♖e6–+ is the simplest, although Black could even afford to give up the rook and still win easily with the extra knight.
1.♕d5? initially looks very enticing, hitting both the rook and the f7-pawn, while the queen is immune due to 1...♘xd5? 2.♖e8†. However, Black can defend with:

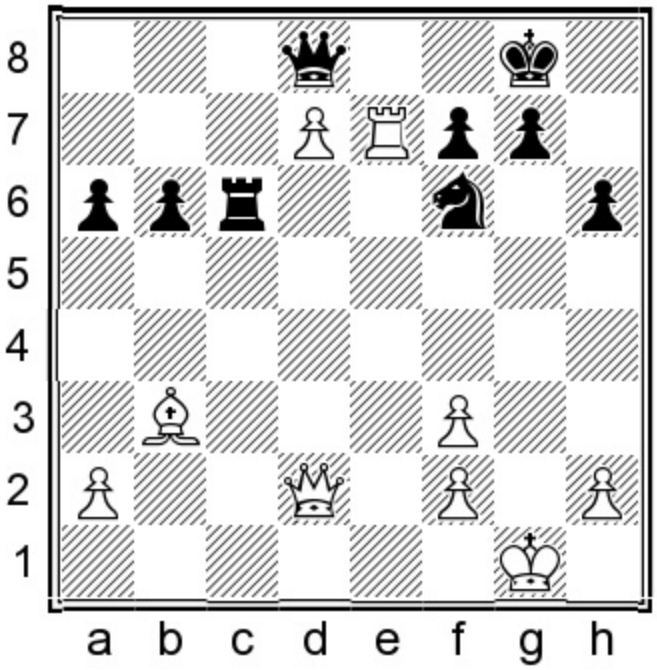


1...♕xd7! Removing the dangerous pawn while defending c6 and f7. White has nothing better than 2.♕xd7 ♘xd7, when 3.♖e7! is roughly equal (but not 3.♖e8†? ♘f8 when Black covers the back rank and remains a pawn up).

1...h6

There is no way to resist for long.

1...♕xe7 is of course hopeless due to: 2.d8=♕†+–



2.♖xf7 ♔h8

2...♔h7 3.♕d3† is essentially the same.

3.♖f8† ♕xf8 4.d8=♕

Black can resign.

Scoring for Puzzle 27

Best move	Score	Evaluation
1.♖e7	**10**	**+6**
1.Others	1	

Bonus points for correct evaluation

More than +2.49	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

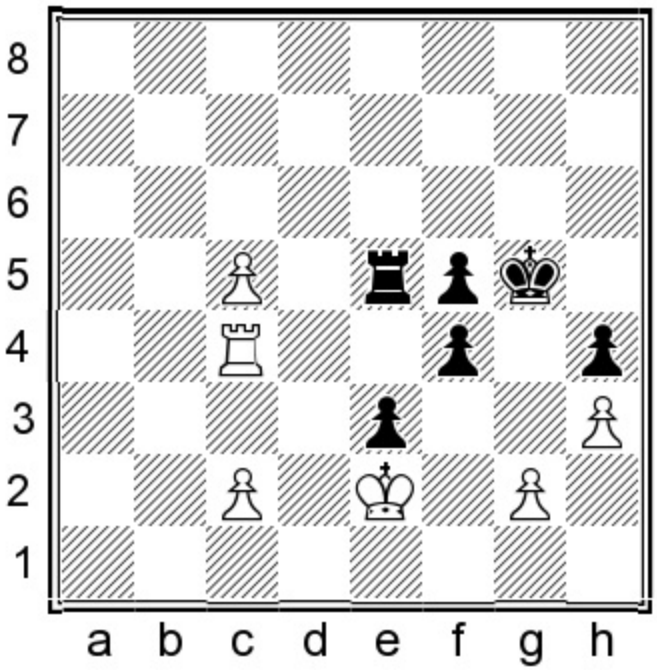
The reason why I included this puzzle is because I was unable to find the best move during the game, or conceive of it during my post-mortem analysis, even though I could see the computer showing a +6 advantage to White.

The winning move is surprisingly beautiful. I was pretty sure many players, including strong club players, would not see it, and in fact no one rated below 2000 was able to spot it.

Adams Insight

Finding the winning move here is tricky. The rook moves into fresh air, being immune from capture due to the fact that the black queen is nailed to the d8-square. It's often not easy to find a move where a rook stops partway down a completely open file. As can be seen from many of the comments above, we are often drawn to moving it to the back rank in that situation, particularly here, where the weak back rank is a clear liability for Black. Agnieszka unfortunately rejected the winning choice as the same move hadn't worked out well in a previous game, resulting in her rook being trapped – but since f7 is caving in immediately in this case, it is quite a different scenario.

Puzzle 28



Black to play – Level 7

Show/Hide Solution

Puzzle 28 – How far can you see?

Taran Jina
Elo 1912

00:30 I have to try and stop the c-pawn. It is too dangerous.
00:45 Stopping the c-pawn is not easy by the looks of it.
02:00 I just spotted 1...♖d5, with the idea of ...♖d2†, which looks good.
02:30 1...♖d5 2.c6 ♖d2† Now 3.♔f3 walks into mate. So White has to play 3.♔f1 or 3.♔e1.
03:00 3.♔e1 allows me to take on g2, so presumably White plays 3.♔f1. Now 3...♖f2† 4.♔g1 is forced.
Hmm. Black may not be able to play for a win here.
04:00 After 3.♔f1 ♖d1† gets you a draw.
05:00 Not entirely sure if Black can play for a win here.
06:00 I think 1...♖d5 should at least be a draw.
07:30 King moves are pointless. And 1...♖e8 2.c6 is not good for Black.

1...♖d5

Evaluation: 0.0 (Draw by repetition.)

Nathanael Paul
Elo 1993

00:30 1...♖d5 with the idea of 2...♖d2†.
00:45 But the king could go to e1.
01:05 1...♖d5 2.c6 This looks like a fast pawn. I might need to retreat the rook to stop it, but that option looks very passive.
In that case he would also have ♔f3, threatening my f-pawn. So it looks like 1...♖d5 is the best option.
After 1...♖d5 2.c6 ♖d2† 3.♔e1 and I take his g-pawn, 3...♖xg2. And if 4.c7 f3! there is mate.
03:05 So after 2...♖d2†, White is forced to go 3.♔f1. This looks like a perpetual.
03:50 I go for 1...♖d5.

Evaluation: 0.0

Julio Granda
Elo 2630

00:30 The first move by intuition is 1...♖d5. 1...♖e4 fails, so I discard it immediately.
1...♖d5 has to be the move here. There is a mating threat lurking around the white king. Besides, any other move, such as ...♖e7, is just too passive and loses as the white king gets comfortably into f3.
01:40 So, 1...♖d5 is the only move.
03:30 1...♖d5 2.c6 (forced) 2...♖d2† 3.♔e1 ♖xg2! 4.c7 f3, and Black queens. However, White may try 4.♖c3! instead.
(Goes into deep thought.)
08:00 If 3.♔f1 ♖f2† 4.♔g1 f3! 5.gxf3 ♖xf3, Black threatens 6...e2 and I can't see White stopping it. In order to resist, White has to play his king to e1: 1...♖d5 2.c6 ♖d2† 3.♔f1 ♖f2† 4.♔e1 ♖xg2 5.♖c3! and this looks like a draw.
11:00 Black will end up with two pawns against one, but with proper play White should hold.

1...♖d5

Evaluation: 0.0

Michael Adams
Elo 2701

00:30 The passed c-pawn is very strong. I don't like the idea of defending passively with 1...♖e7 and 2...♖c7.
00:45 1...♖d5 is the only active possibility, with the idea of 2...♖d2† and getting counterplay.

01:15 So 1...♖d5 2.c6 ♖d2† 3.♔f3? ♖f2 mate.
01:50 If 3.♔e1 ♖xg2 4.c7 f3 with the threat of ...♖g1 mate.
03:20 After 1...♖d5 2.c6 is possibly White's best and only reply.
04:30 1...♖d5 2.c6 ♖d2† 3.♔f1 ♖d1† 4.♔e2 ♖d2† with a repetition.
05:30 Maybe 3...♖f2† instead. 4.♔g1 and now 4...f3 5.gxf3 ♖xf3 may be good.
07:00 So 4.♔e1 ♖xg2 5.♖c3 is the only move for White. This has to be the key position.
08:30 5...f3 6.♖xe3 and can I now play 6...♔f4? No, he has 7.♖c3.
09:00 5...f3 6.♖xe3 ♖xc2 7.♖xf3 ♖xc6 and this is probably a theoretically drawn endgame.
(Thinks a bit longer.)
10:15 Yeah, I can't see anything better. 1...♖d5 has to be the move, entering into a rook with two pawns versus one ending, which should be drawn.

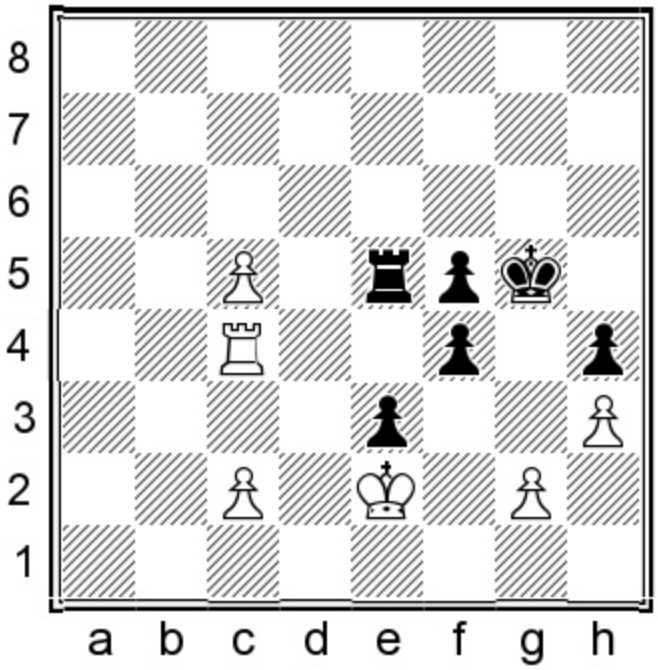
1...♖d5

Evaluation: –0.8

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



Black's rook should stay active. When so few pieces remain, their potential must be maximized. The first move is not too difficult to find, but getting every detail right here requires thoughtful, detailed calculation and precise assessment of the position.

1...♖d5!

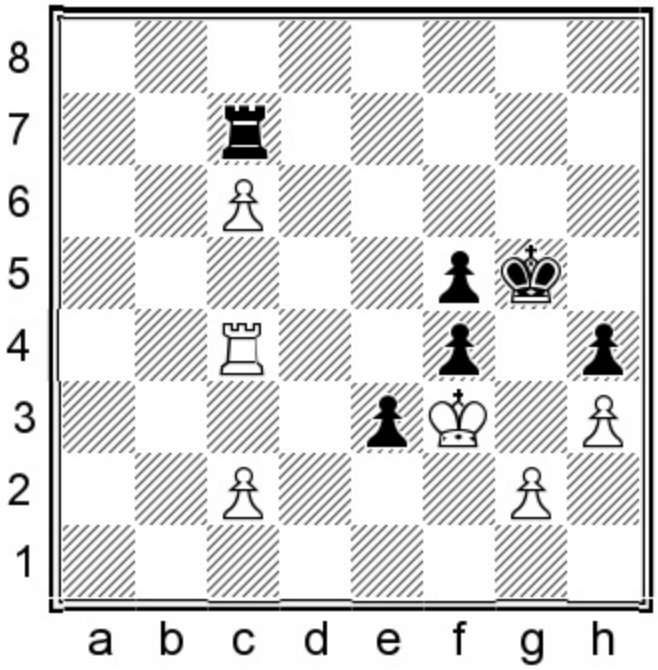
1...♖e7?

This passive approach should also lead to a draw, but in a much less appealing way.

2.c6 ♖c7 3.♔f3

a) 3.♔e1 ♔g6 4.♖xf4?! (4.♔e2 repeats) 4...♖xc6 only holds dangers for White. 5.♖xh4 ♖xc2 6.g3 ♖g2 7.♖h8 ♔g7 8.♖h5 would be the correct drawing path.

b) 3.♔d1 ♔g6 4.♖xf4 ♖xc6 5.♖xh4 ♔g5 6.g3 (In the event of 6.♖d4 f4 Black's powerful pawn on e3 ensures full compensation.) 6...e2† 7.♔xe2 ♖xc2† 8.♔f1 ♖c3 9.♔f2 ♖c2† White's extra pawn is meaningless.



3...♖e7

This is not forced, but it's the easiest way to demonstrate that Black can avoid losing to zugzwang.

4.♔e2=

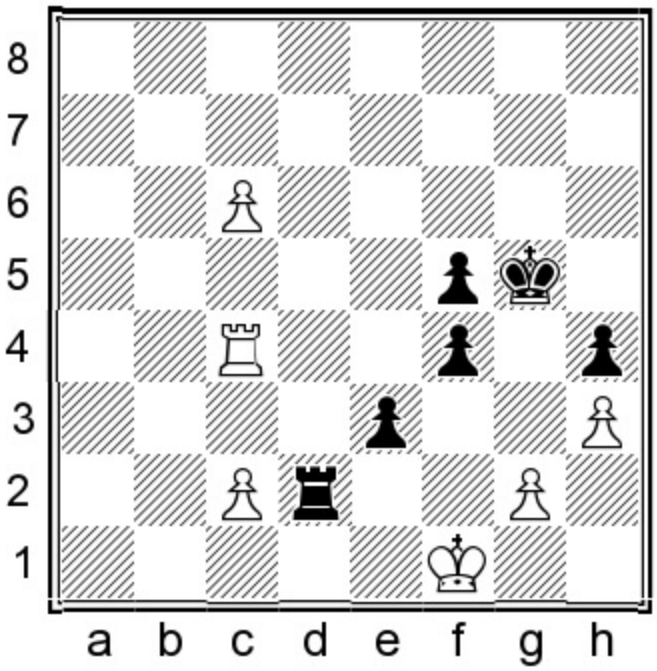
White must go back, as 4.c7? e2 5.c8=♕ ♖e3†! 6.♔f2 e1=♕# would be unwise.

Even though the above line avoids defeat, it is easy to determine that Black is in no danger after the main solution, so Black should certainly be more ambitious than settling for this passive option.

2.c6 ♖d2† 3.♔f1

The natural move, defending g2 for now and hoping Black will settle for a draw.

3.♔f3?? ♖f2 is mate, while 3.♔e1 ♖xg2 transposes to the main line below, with one less move played.



3...♖f2†!

3...♖d1† only leads to a repetition after 4.♔e2 ♖d2†, since 4...♖g1? loses to 5.c7 ♖xg2† 6.♔d3 when White's king gets away and the new queen on c8 will decide matters.

4.♔e1!

The most stubborn reply, which only makes sense once you have seen White's follow-up.

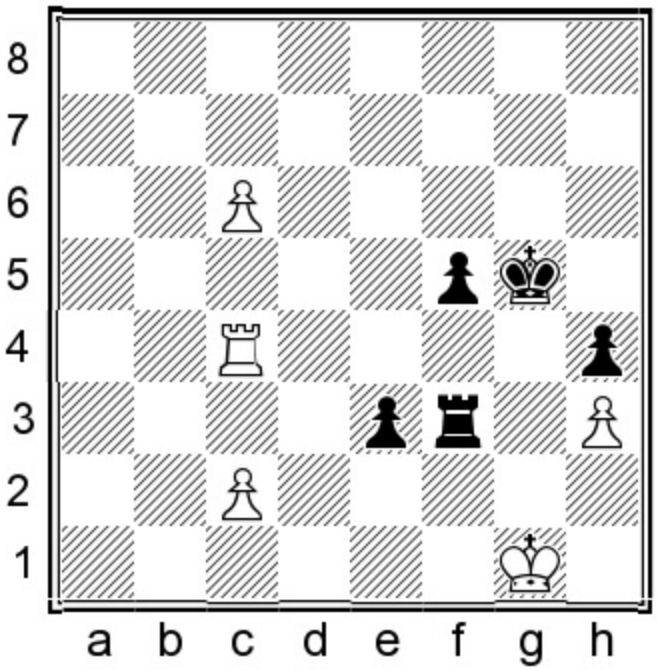
4.♔g1?!

This is not a losing move, but it forces White to walk a much narrower path to avoid defeat.

4...f3! 5.gxf3

5.c7? ♖xg2† is hopeless for White after 6.♔f1 e2† 7.♔e1 ♖g1† or 6.♔h1 e2.

5...♖xf3



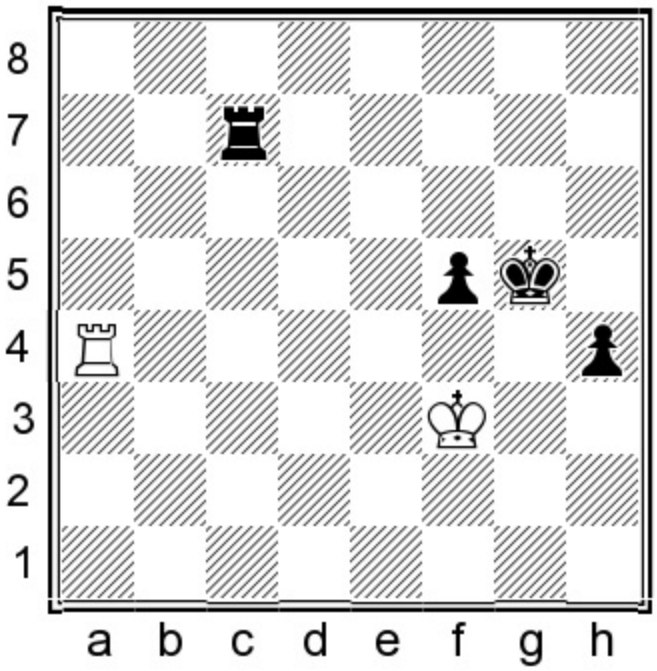
6.♖a4!

6.c7? and 6.♖c3? both lose immediately to 6...e2.

6...♖xh3

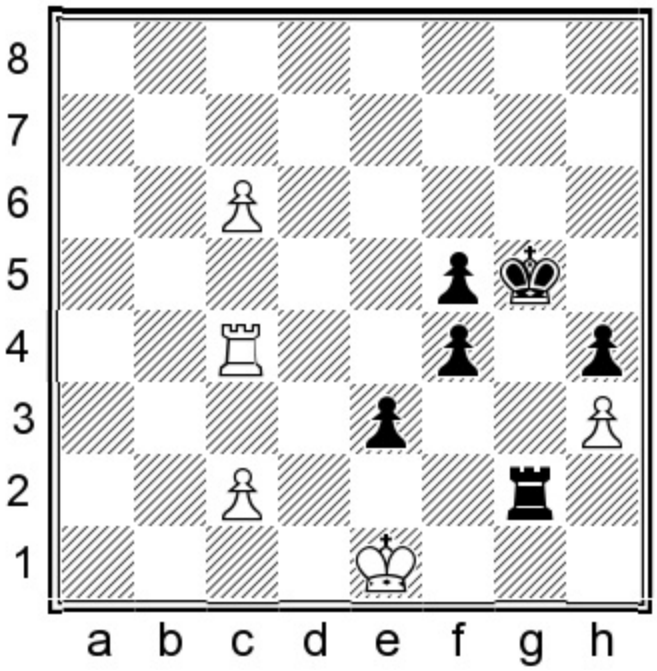
6...e2!? 7.♖a1 ♖xh3 8.♖e1 ♖g3† 9.♔f2 ♖c3 10.♖xe2 ♖xc6 is another line which is theoretically drawn but would offer practical winning chances.

7.c7 e2 8.♔f2 ♖c3 9.♔xe2 ♖xc2† 10.♔f3 ♖xc7



Despite the two extra pawns, the tablebase confirms that White can and should draw, but there is precious little room for error.

4...♖xg2



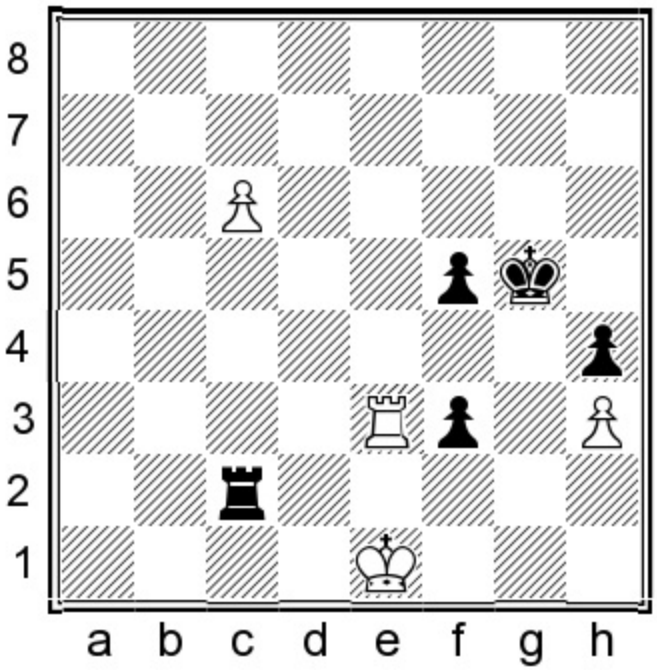
5.♖c3!

When you have a passed pawn about to queen, it is easy to only consider pushing it, but a calmer survey of the situation shows it is necessary to concentrate on defence right now. This move freezes Black's pawns, so he is forced to part with his e-pawn to mop up the white pawns on the c-file.

5.c7? f3 wins easily after 6.c8=♕ ♖g1# or 6.♔f1 e2† 7.♔e1 ♖g1†.

5...f3 6.♖xe3 ♖xc2

6...♔f4? 7.♖c3! is obviously no good for Black.



7.♖xf3

A strange alternative is:

7.♖e6!?

It's hard to imagine anyone choosing this in a practical game, but it is good enough to draw.

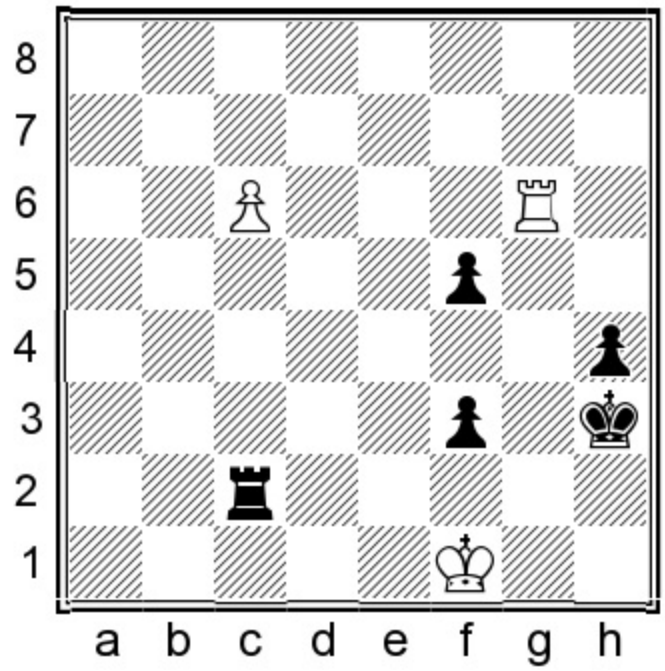
7...♔f4 8.♔f1

8.♖g6? f2† 9.♔f1 ♔f3 wins for Black.

8...♔g3 9.♖g6† ♔xh3

9...♔h2 10.c7 ♖xc7 11.♔f2 ♖c3 12.♖g7 ♔xh3 13.♖g6 is also a draw.

Now Black's king is stuck on the h-file, and if White keeps it there he will survive.



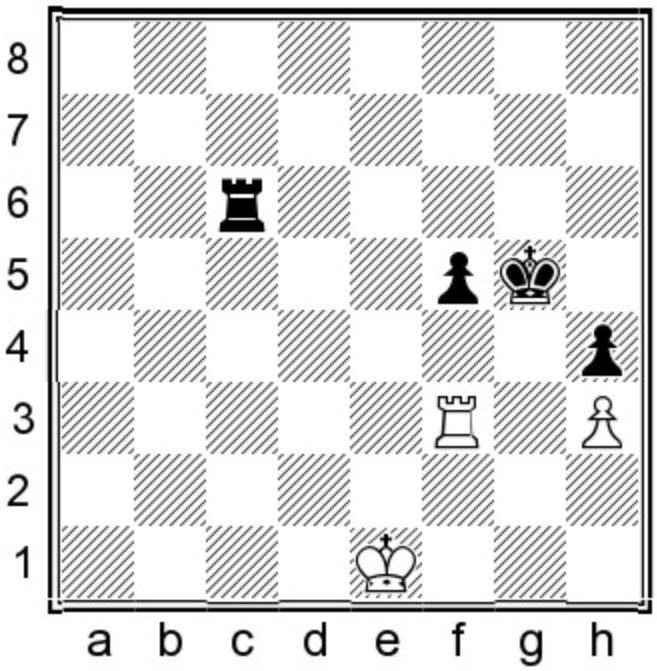
10.♔g1 f4 11.♖g8

11.♔f1 ♔h2 12.♖g4 ♖xc6 13.♔f2 also works.

11...♖xc6 12.♔f2

Despite having three extra pawns, Black is unable to win with his king confined to the h-file.

7...♖xc6



Julio and I both calculated to this position. Obviously in a practical game Black would keep trying, but White should be able to hold fairly easily.

This puzzle has a different evaluation scoring system, based on how far you saw:

Scoring for Puzzle 28

Best move	Score	Evaluation
1...♖d5	**10**	**–1.2**
1...♖e7	1	0
1...♖e8	1	+0.4
1...Others	1	

Bonus points

If you saw the 4.♔g1 **f3!** idea	1 point
If you saw the 4.♔e1 ♖xg2 5.♖**c3!** idea	2 points
If you saw the transposition 3.♔e1 ♖xg2 4.♖c3!	2 points
If you saw all the way to the 2 vs 1 rook and pawn ending position after 7.♖xf3 ♖xc6	**3 points**

Puzzle Commentary by Phil

During the puzzle experiments I have come to realize that calculation is probably the Super-Grandmaster's greatest asset. Before the puzzle experiments I thought they were simply better because they studied more, knew more openings and so on. Now I have witnessed first-hand that often the most striking difference between them and us is their calculation ability.

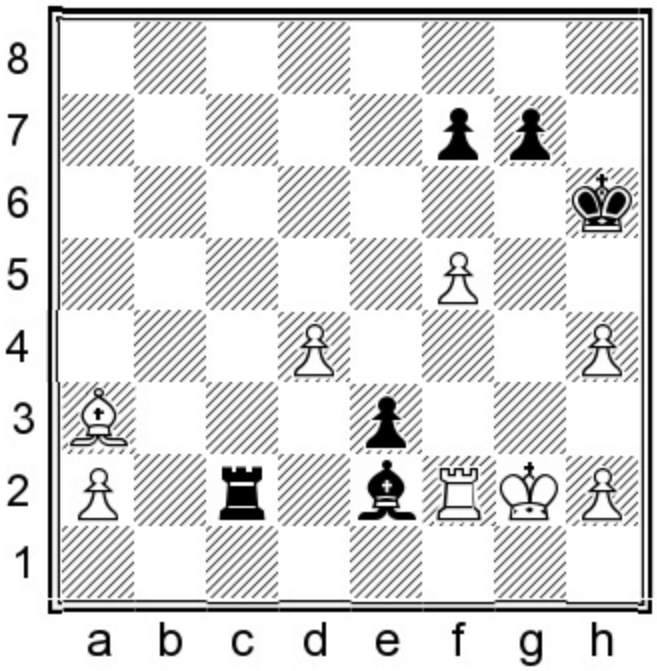
Adams Insight

In this example there are several junctures in the critical line, where you really need to focus on finding the most precise moves for both sides. Another endgame where every move has serious consequences and tactical alertness is crucial. The cool retreat 5.♖c3! in the main line is not that easy to see in advance, but once you arrive at that position it is clearly necessary to nudge the rook backwards, and this calm defence is sufficient to save half a point.

Positions 29-32

A Forceful Four

Puzzle 29



White to play – Level 7

Show/Hide Solution

Puzzle 29 – Cut and Thrust

Penny Wood
Elo 1443

00:30 If there's a trick here for White, I can't imagine what it is!
00:40 The one blaring thought is that the rook's got to do something.

00:45 It daren't move due to discovered check.
01:00 It can take the bishop. 1.♖xe2 ♖xe2† 2.♔f3 and now Black can play 2...♖e1 or 2...♖xa2.
03:00 After this, White's king and bishop can try to protect the d-pawn. But meanwhile the a- and h-pawn go. Black is an exchange up and holds all the cards.
05:00 The resulting position is so one-sided I feel I'm missing something.
06:00 I will go for 1.♖xe2.

Evaluation: Lots to Black.

Francisco Marcos
Elo 1842

00:20 My rook is en prise. And if I go with it somewhere there is a discovered check.
00:30 The rook can only go to f4.
00:45 The other option I have is to take on e2.
01:00 The problem here is that after 1.♖xe2 ♖xe2† 2.♔f3 Black can play 2...♖xa2, and I have to defend for the rest of the game.
01:30 It's not a happy trade.
02:30 1.♖f4 ♖xa2 and now I have to move my bishop. Let's see if Black can profit from the discovered check.
05:30 1.♖f4 ♖xa2 2.♗c1 ♗h5† 3.♔g3 e2
06:00 No. White is in trouble here. I can't stop the pawn.
06:30 What about 1.♖f4 ♖xa2 2.♗b4 – is this an option?
07:30 Uff! This is hard! Let's have a look at sacrificing the exchange.
It is nearly impossible to save this position. Another option is to try and push the d-pawn forward.
08:30 But I don't see this plan as viable.
12:30 This is too complicated. I have to calculate once more if I can save the game with ♖f4: 1.♖f4 ♖xa2 2.♗b4 ♗h5†
13:00 The problem here is that the e-pawn marches to e2, and my rook on f4 is badly placed.
14:00 Let me try again ♖xe2: 1.♖xe2 ♖xe2† 2.♔f3 ♖xa2 and now I have to move my bishop, and this doesn't look good.
One more time 1.♖f4.
(Thinks silently.)
14:55 Well. I have made a decision now. And ready to make my move. 1.♖xe2
I think the most likely continuation is: 1.♖xe2 ♖xe2† 2.♔f3 ♖xa2 3.♗c5 with some advantage to Black.

1.♖xe2

Evaluation: –0.30

Philip Hurtado
Elo 1924

00:10 This one looks more complicated. First of all, my rook is attacked. I should move it, I guess.
00:20 Just before moving the rook, I am looking at 1.♗c1. This pins the pawn and prevents him from taking my rook. If this is good or not, I am not yet sure.
00:50 Actually, 1.♗c1 might be the only move, as my rook is pressed for squares. Now Black can either take my bishop or take my pawn on a2. This looks very interesting!
01:45 Let's start with 1.♗c1 ♖xc1 2.♖xe2 which seems like the most forcing line. In this case I am sure White is winning, as he has everything: two passed pawns, and an active king.
01:55 So after 1.♗c1 Black cannot take my bishop. He has to play 1...♖xa2.
03:30 I have been distracted looking at "clever" alternatives like 1.♗f8, with the idea of 2.f6. But I think any move other than 1.♗c1 loses.
04:00 The key line seems to me to be: 1.♗c1! ♖xa2 2.♗xe3† ♔h5 (for example) 3.♔g3 with the idea of getting my king to help promote my passed d-pawn. It seems here I have quite a significant advantage.
04:30 The question is whether, after 2...♔h5, I should play a move like 3.f6, to stop him from playing ...f6 himself as that would prevent my king from marching forward.
06:50 There are options like: 1.♗c1 ♖xa2 2.♗xe3† ♔h5 3.d5 ♖d2 *(this blunders the rook, but Phil was unaware)* 4.d6!? That could be very dangerous for Black.
07:00 Apart from 3.d5, I could simply try and centralize my king and move it towards e3 or e4 and support the march of my pawns.
07:15 In a game, I would have already played 1.♗c1. I think this is the best move.

1.♗c1

Evaluation: +2.0

Eduardo Iturrizaga
Elo 2607

00:15 The first idea that comes to mind is 1.♗c1.
00:30 1.♗c1 ♗f3†
00:50 Actually, 1...♗f3† could be somewhat annoying.
02:20 1.♗c1 ♗f3† 2.♔xf3 ♖xf2† 3.♔e4 ♖xh2 4.♗xe3† ♔h5
02:30 Now 5.d5 and Black will have to exchange all pawns and sacrifice the rook for the d-pawn to draw.
1.♗c1 is the move.

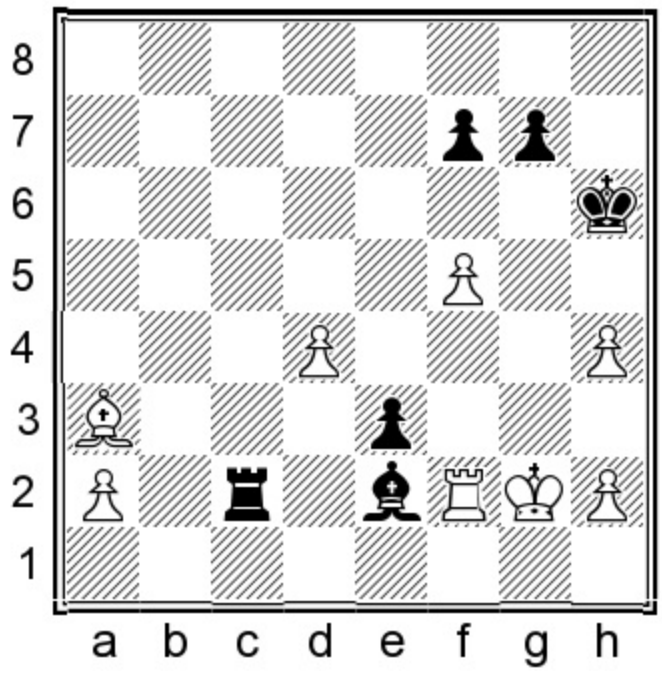
Evaluation: 0.0

Deeper Analysis by Michael Adams

Mariya Muzychuk – Michael Adams

Baku 2015

1.c4 e5 2.g3 ♘f6 3.♗g2 h6 4.♘c3 ♗b4 5.♕b3 a5 6.e3 ♗xc3 7.♕xc3 d6 8.♘e2 0-0 9.0-0 ♘c6 10.d4 ♗f5 11.d5 ♘e7 12.f3 e4 13.f4 ♕d7 14.b3 a4 15.♗b2 a3 16.♗c1 c6 17.dxc6 ♘xc6 18.♘d4 ♘xd4 19.♕xd4 d5 20.c5 h5 21.♗d2 ♖a6 22.♗c3 h4 23.gxh4 ♖c8 24.♖ac1 ♖ac6 25.b4 b6 26.cxb6 ♖c4 27.♕d2 ♕c6 28.b7 ♕xb7 29.♗d4 ♕xb4 30.♕xb4 ♖xb4 31.♖xc8† ♗xc8 32.♖c1 ♗e6 33.♗f1 ♔h7 34.♗e2 ♗g4 35.♗xf6 ♗xe2 36.♗d4 ♗c4 37.♖c2 ♔h6 38.♔g2 ♖b1 39.♗c5 ♖b2 40.♖f2 ♗e2 41.♗xa3 ♖c2 42.f5 d4 43.exd4 e3



44.♖f4?

At first it looks like this is the only move, but there is a tactical resource available. Working out the full implications of that is far from simple though.

44.♖xe2? ♖xe2† 45.♔f3 ♖xa2 gives Black excellent winning chances.

The best move is:

44.♗c1!

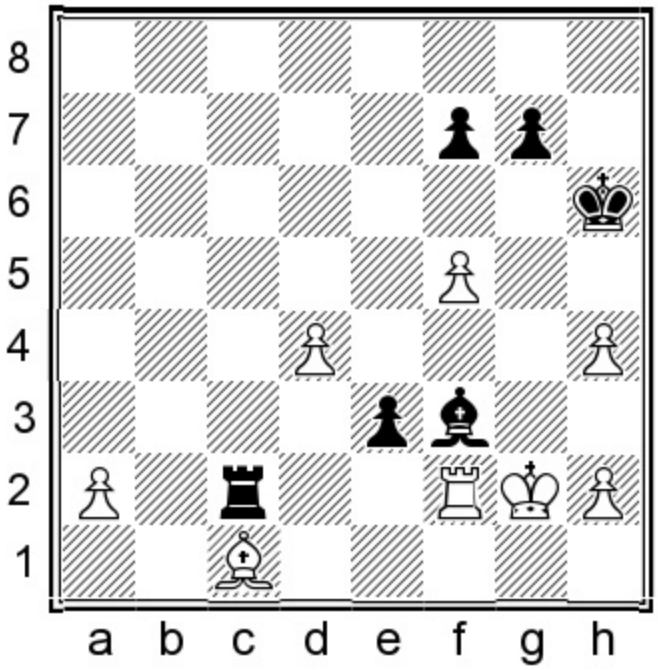
Mariya saw the idea, but assessed the endgame after Black's reply too negatively.

44...♗f3†!

Clearly there is no point in playing 44...♖xc1?, but it is interesting to note in passing that after

45.♖xe2 ♖c4, despite White's two extra pawns, the pawns are so scraggly that a draw is the most likely result.

44...♗f1†?! should lead to a draw after 45.♔g1! (45.♔g3? ♖xc1–+) 45...♖xc1 46.♖xf1 ♖c4 47.♖e1 ♖xd4 48.♖xe3 ♖xh4 when White's extra pawn is unimportant – but Black should be aiming for better than this.



45.♔xf3!

There is no choice. 45.♔g1? is obviously not an option as the bishop falls with check, while 45.♔g3? and 45.♔h3? both lose trivially to 45...♖xc1 46.♖xf3 e2 when the passer costs White her rook.

45...♖xf2†

Black's rook is very useful in this variation, and has a lot of weaknesses to target – but capturing them takes time, and my king will not be much help for a while. Also White does have a lot of pawns to reckon with, even though some of them will not last that long.

46.♔e4!

Protecting the pawn on f5, which is significant, as this prevents my king finding a quick route into action. It also moves in the right direction to support White's most dangerous asset, the d-pawn, which needs to be supported by White's pieces. The pawn on e3 will be smoothly collected by the bishop. In my calculations during the game, I was fairly confident I wasn't risking much here, but was sceptical that I had any realistic winning chances, which is in fact a pretty accurate appraisal.

a) 46.♔g4 ♔h7 47.♗xe3 ♖xh2 48.a4 ♖a2 is a better version for Black.

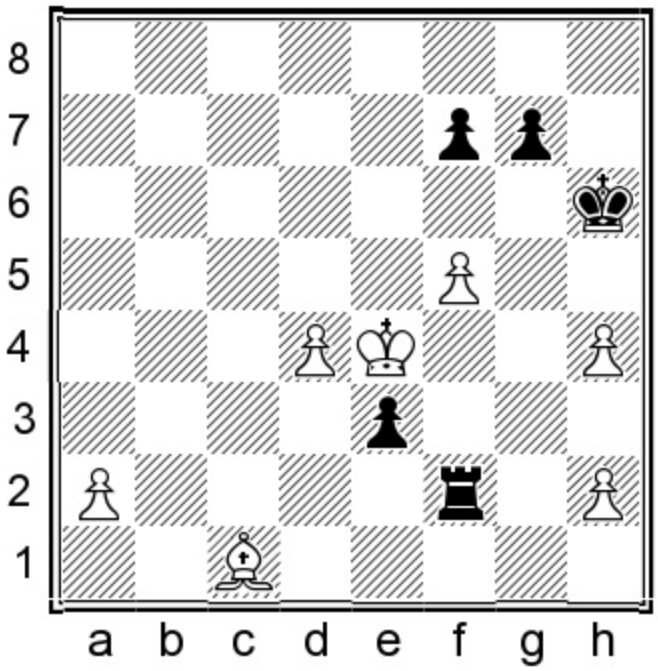
b) In the event of 46.♔xe3? ♖xf5! Black is pressing, and my king can sidle into play via g6. Here are a few possible continuations:

b1) 47.♔e4† ♔g6 48.d5 ♖h5 with good winning chances.

b2) 47.♗d2 ♔g6 48.a4 ♖h5 49.♗e1 ♔f5 50.a5 ♖h8 and Black is better, with the pawns halted for

now.

b3) 47.d5 ♔g6! (47...♖xd5?? 48.♔e4†+–) 48.♔d4 ♖f1 49.♗e3 ♔f5 With the king now taking an active role in the game, Black is in charge.



46...♖d2!

After 46...♖xa2 47.♗xe3† ♔h5 48.d5 the pieces begin departing from the board at a fair clip: 48...♖xh2 49.d6 ♖xh4† 50.♔d5 ♔g4 51.d7 ♖h8 52.♗b6 ♔xf5 53.d8=♕ ♖xd8† 54.♗xd8 with a draw.

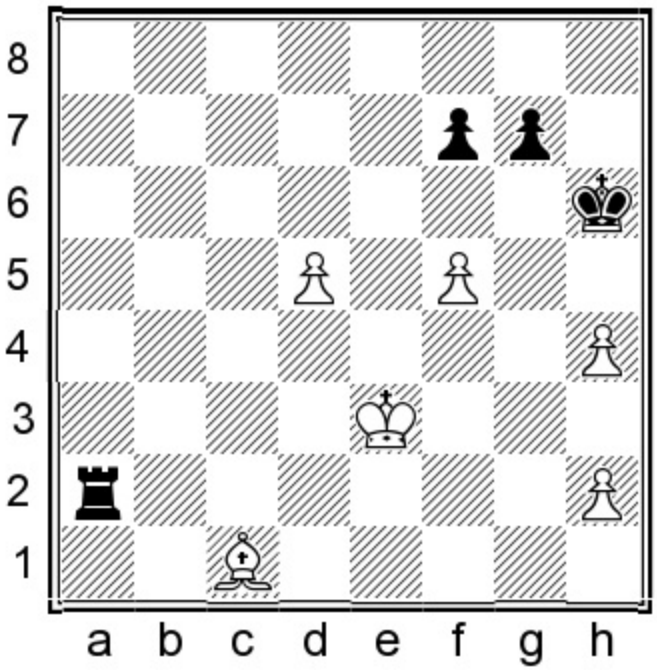
47.♔xe3

47.d5 ♔h7 allows me to bring the king round to cover the d-pawn.

47.a4!? ♔h5 48.a5 ♔xh4 49.d5 ♔g4 50.a6 ♖a2 51.♗xe3 ♖xa6 52.♗c5 ♖a4† 53.♗d4 ♖a6 54.♗c5 and a draw is on the cards.

47...♖xa2 48.d5

Now Black should look to guarantee half a point.

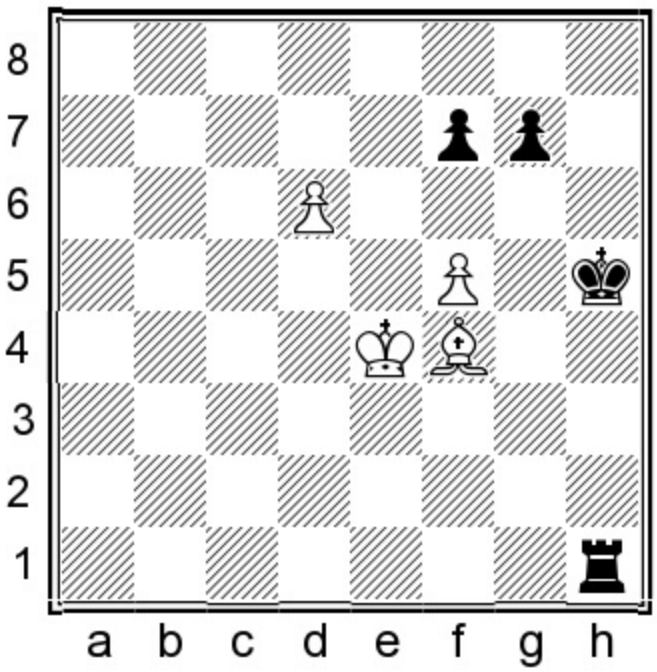


48...♔h5

Another route to a draw is: 48...♔h7 49.♔e4 ♔g8 50.d6 ♔f8 51.f6 gxf6 52.♔f5 ♔e8 53.♗f4 ♖a5† 54.♔xf6 ♖a4 55.♗g5 ♖e4=

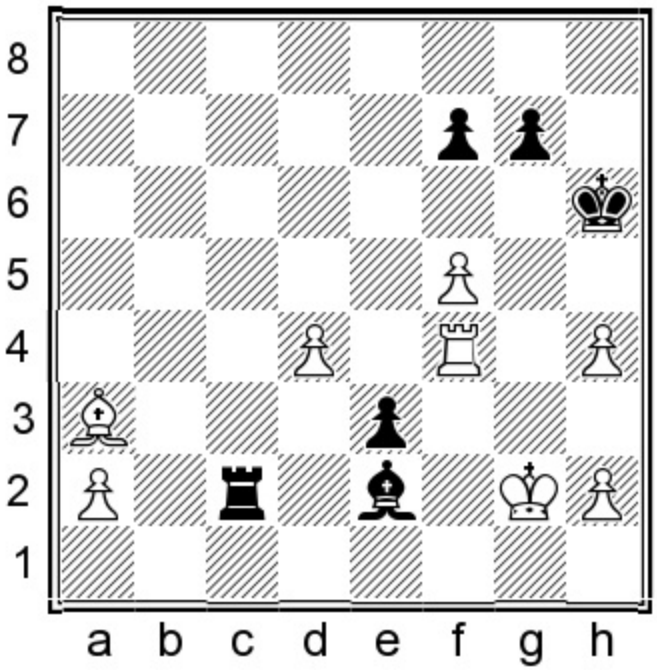
49.♔e4 ♖xh2 50.d6 ♖xh4† 51.♗f4 ♖h1

White's pawns will soon be liquidated, but so will Black's rook. For instance:



52.♗d2 ♖h4† 53.♔d3 ♔g4 54.d7 ♖h8 55.♗a5 ♔xf5 56.d8=♕ ♖xd8† 57.♗xd8

With a draw.



44...♗c4†!

A very strong continuation. Rather than grabbing unimportant pawns, I concentrate at getting maximum value from my pieces. My bishop will dominate the board from a fine central post on d5.

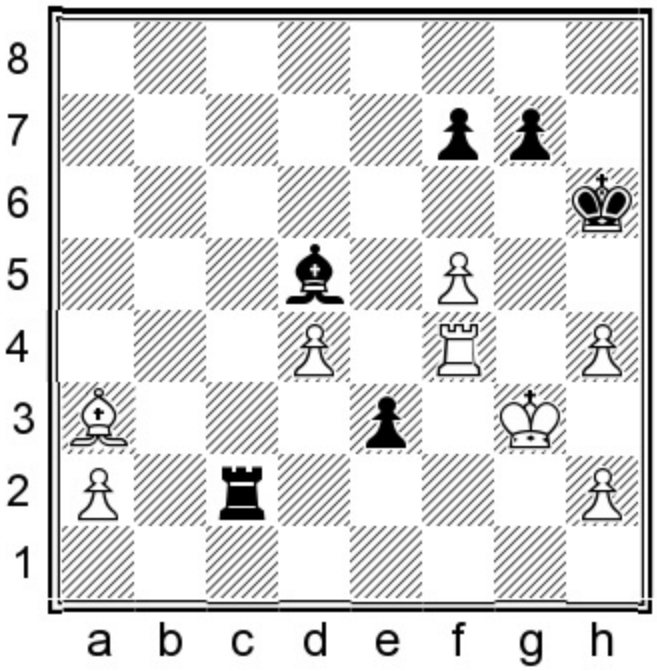
44...♖xa2 45.♗c1! ♗h5† 46.♔g3 e2 47.♖f1† ♔h7 48.♖g1 should be okay for White.

45.♔g3

45.♔f3 ♗d5†! is a key detail, as 46.♔xe3 ♖c3† wins the bishop.

45...♗d5

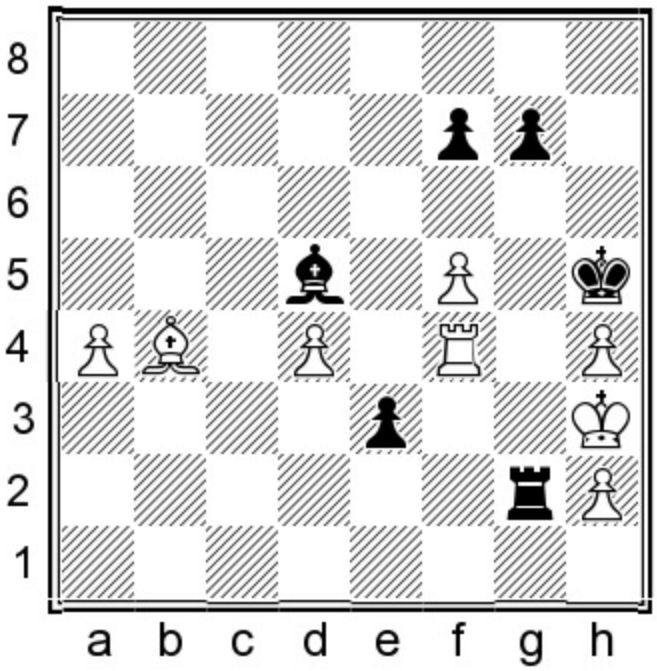
My bishop dominates proceedings from this great square.



46.♖g4

The natural 46.♖f1? is impossible due to 46...♖g2† 47.♔f4 ♖f2† and Black wins.

46.♗b4 ♖g2† 47.♔h3 ♔h5 traps White's king in a vice: 48.a4 (48.♗e1 ♖g1 49.♗g3 ♗g2#; 48.♖f1 ♖g4! 49.♖e1 ♗g2#)



48...♖g1 49.a5 My bishop also controls a8 so the advance of the a-pawn is no issue. 49...f6! 50.a6 g5! 51.fxg6 (51.hxg5 fxg5–+) 51...♗e6† And mate.

46...♖f2!

Again inconveniencing White's king, rather than taking a meaningless pawn with 46...♖xa2?,

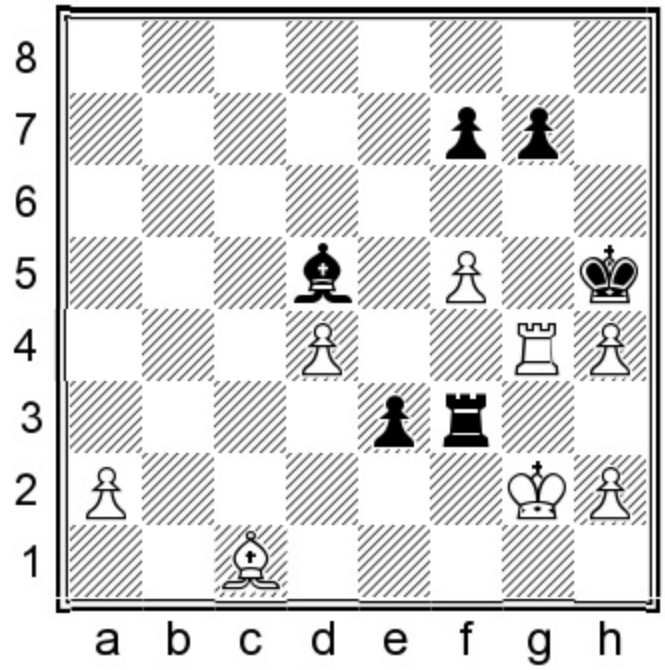
when 47.♗c1! improves White's bishop.

47.♖g5

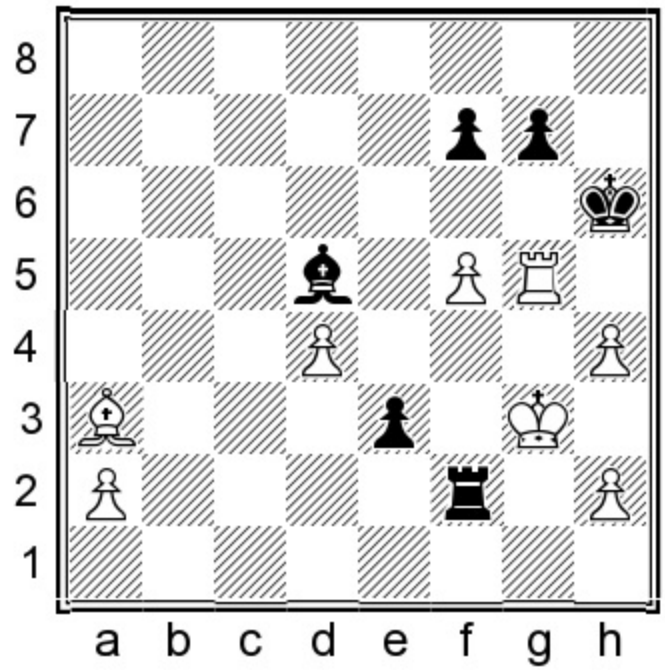
47.♗f8 loses to 47...♖f3† 48.♔g2 e2 49.♗xg7† ♔h7 and my pawn promotes.

47.h3 ♖f3† 48.♔h2 e2 49.♗b4 ♖f2† 50.♔g3 ♖f1 also wins.

The other option is: 47.♗c1 ♖f3† 48.♔g2 ♔h5



49.♖xg7 (49.♖g5† ♔xh4 50.♖xg7 ♖xf5† 51.♔g1 e2 52.♖h7† ♔g4 53.♖g7† ♔h5–+) 49...e2 50.♗d2 ♖d3† 51.♔f2 ♖xd2–+



47...f6!

But not 47...♖f3†?? 48.♔g4 when Black is suddenly in deep trouble after any of: 48...♔h7 49.f6!; 48...g6 49.fxg6; or especially 48...e2? 49.♖h5 mate!

48.♖g6† ♔h7 49.h5

49.♔h3 e2 50.♗b4 ♖f1 wins.

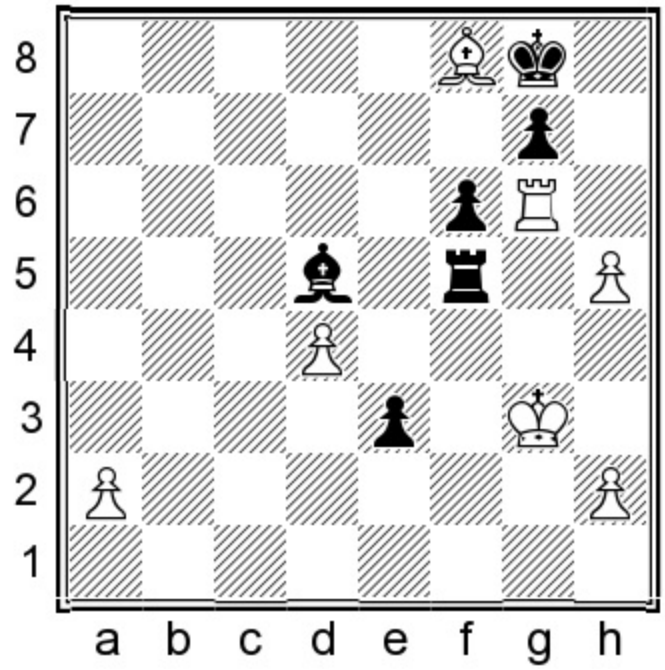
There is also 49.♗f8 ♔g8 50.♗xg7 ♖g2† 51.♔f4 e2 when the pawn promotes.

49...♖xf5 50.♗f8

50.♔h4 e2 51.♗b4 ♖f1–+

50...♔g8

50...♖f3† 51.♔g4 e2 52.♖xg7† ♔h8 53.♖e7 ♖f1 also wins.



51.♗b4

The alternative is:

51.♗xg7

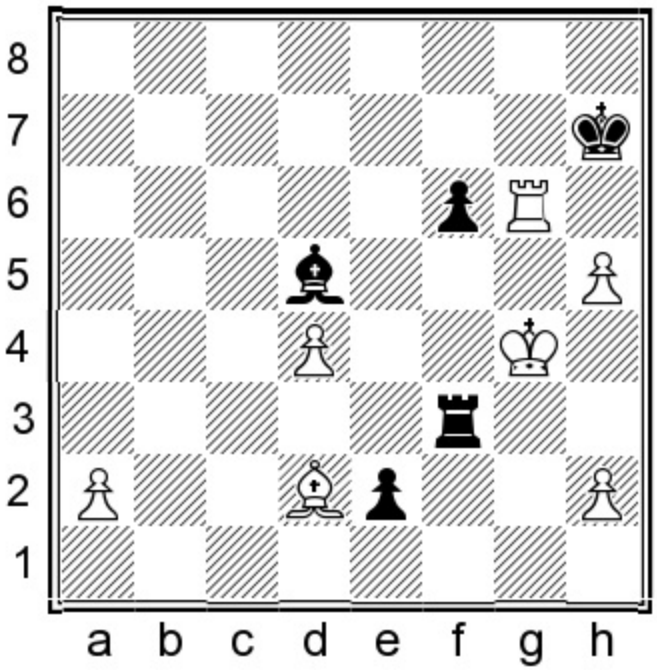
This leaves White's pieces too disorganized to keep control of the e-pawn.

51...e2 52.♗h6†

52.♗xf6† ♔f7–+

52...♔h7 53.♗d2 ♖f3† 54.♔g4

54.♔h4 ♗e6 55.♖h6† (55.♖g3 e1=♕ 56.♗xe1 ♖f4† wins) 55...♔g7 56.♖g6† ♔f7 57.♖g3 (57.♖g2 ♖h3#) 57...e1=♕ 58.♗xe1 ♖f4† is a nice finish.



54...♗e4 55.♖h6†

55.a4 ♖d3 wins.

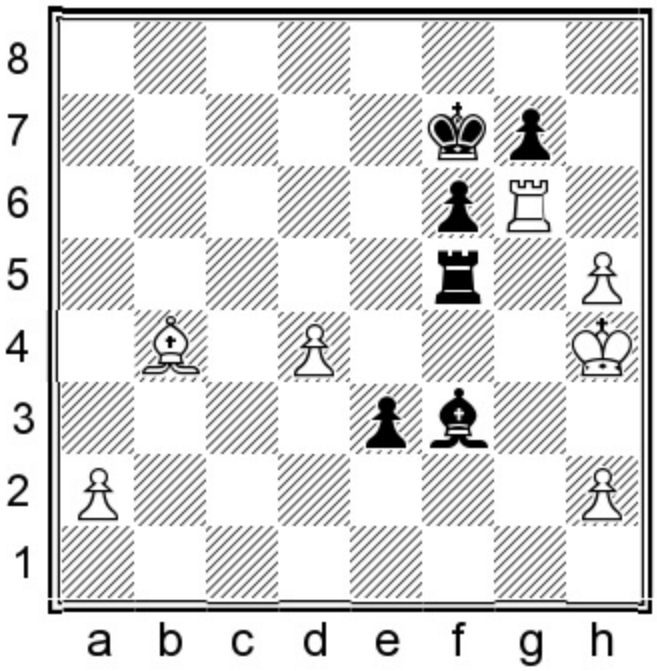
55...♔g7 56.♖g6† ♔f7 57.♖h6 ♖d3 58.♗e1 ♔g7–+

51...♔f7

51...♖f3† also works after 52.♔h4 ♗e6, 52.♔g4 ♔f7 or 52.♔g2 e2.

52.♔h4 ♗f3

52...♗e6! is actually the most precise, with the idea of 53.♖g1 ♖f3, but my move is good enough.



0–1

White resigned, which I wasn't expecting so soon, but 53.♖g1 ♖xh5† 54.♔g3 ♖g5† 55.♔xf3 ♖xg1 56.♔xe3 ♔e6 57.a3 ♖g2 58.h4 ♖h2, equalizing the number of pawns, leads to an easily winning endgame. The first game of our mini-match had ended in a draw, so this was an important win which enabled me to advance to the next round.

Scoring for Puzzle 29

Best move	Score	Evaluation
1.♗c1	**10**	**0**
1.♖xe2	1	–2.3
1.♖f4	1	–2.8
1.Others	0	

Bonus points for correct evaluation

Between –0.3 and –0.59	1 point
Between –0.1 and –0.29	2 points
Between –0.09 and +0.09	**3 points**
Between +0.1 and +0.29	2 points
Between +0.3 and +0.59	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

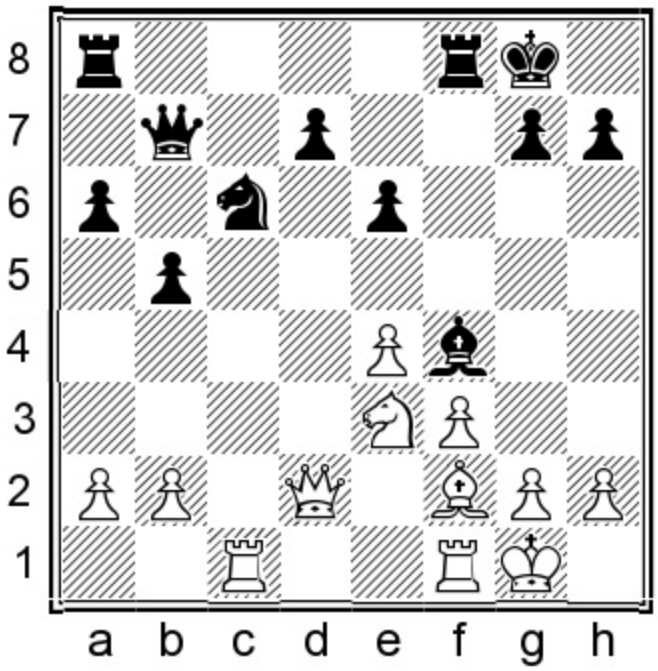
I was surprised some club players did not even see the first move in this important game between the then Women's World Champion Mariya Muzychuk and Michael. Funnily enough, most players who missed 1.♗c1 when solving the puzzle found it within a few seconds once I told them that their solution was incorrect. However, if you considered this puzzle to be easy after finding the correct opening move, you are deceiving yourself. If your Elo is below 2000, I don't believe you spotted Black's best response. By all means give yourself a pat on the back if you did!

You cannot but admire in awe how quickly and precisely strong grandmasters find the most challenging lines, and how accurately they assess the resulting positions.

Adams Insight

Just like the previous puzzle, every move requires a strong effort to work out the best option in this concrete endgame. Judging the position once the smoke from the initial tactical skirmishes has cleared also takes some consideration, as a serious material imbalance remains. It was this factor that caused my opponent to go wrong in the heat of battle. In a calmer setting, Eduardo did a good job of working his way through the key variations, move by move, to find the correct sequence of play and figure out the consequences.

Puzzle 30



White to play – Level 8

Show/Hide Solution

Puzzle 30 – How To Unpin?

Fermin Rodriguez
Elo 1544

00:20 White has two pawn islands. Black has three. Black's knight seems better than White's. Black has a weakness on d7. I'd say White is slightly better.
00:45 Black's bishop on f4 is X-raying my queen and rook.
01:00 I'm not too happy about Black's bishop on f4. It's quite uncomfortable for me.
02:30 Okay. I think I would play 1.♖fd1.

03:00 Actually, I am going to change my mind. Because of the X-rays on my rook, I am going to move the rook on c1 instead. 1.♖cd1 and get my rook out of the pin. Yes, this is better. And I am putting pressure on d7.
04:30 After 1.♖cd1 Black can play 1...♘e5. I would then play 2.b3. I have a problem with knights. I am terrified of knights.
05:30 I think after 1.♖cd1 White is better. Yes. That is what I would play.

1.♖cd1

Evaluation: +0.22

Sebastian Reyes
Elo 2272

02:00 White's advantages are two open files, and pressure against a weak pawn on d7. Black has a good bishop on f4. Quite bothersome.
02:30 Maybe it is possible to get rid of the bishop on f4 by playing 1.g3. But this weakens the f3-square a lot.
03:00 The most normal move here would be 1.♖fd1, activating this rook. But 1...♘e5! is incommodious.
03:45 I have to try 1.g3, but I have to be careful Black cannot attack my f3-pawn. Maybe he can't.
05:00 1.g3 ♗xe3 2.♗xe3 ♘e5 3.♕e2 ♘c4 4.♗f2 followed by b3.
05:45 I think 1.g3 is the move I would play. Or maybe 1.♖fd1.
06:45 I think I go for **1.g3.**

Evaluation: Slight advantage for White. (+0.25)

Akshaya Kalaiyalahan
Elo 2149

02:20 I am looking at getting out of the pin with 1.♕e1. But can't see how to get an advantage after 1...♘e5.
06:30 I am still thinking of 1.♕e1 ♘e5.
11:00 I am now looking at 1.g3, and thinking if I can play f4 at some point, or not.
12:50 I am also looking at 1.♗g3.
I think I am going to go for 1.♗g3.
14:30 1.♗g3 ♗xg3 2.hxg3 and then maybe if 2...♕c7 3.f4, and if 2...♘e5 maybe 3.♕e2.

1.♗g3

Evaluation: Slight advantage for White. (+0.2)

Juan Reyes
Elo 2451

00:30 Black seems better here, unless White can play something decisive. White is a bit stuck.
01:00 1...♘e5 could be dangerous. I also don't like the pin on my knight.
I am afraid of 1...♘e5 with the idea of getting into c4. I suppose I could play b3. But I am afraid of tactical possibilities on f3.
02:00 I shouldn't play 1.g3 because that leaves my f3-square very weak, and I don't like that.
02:30 I need to get my pieces out of the pin. Maybe start by moving my rook somewhere.
02:30 Black is threatening moves like 1...♕b8 and 1...♘e5, putting pressure on my h-pawn and my kingside. The question is: how do I defend that?
04:00 If 1.b3 ♕b8 2.g3 ♘e5 3.♔g2 and it seems I am okay.
07:00 But 1.b3 feels a bit passive. I could try 1.♔h1, and after 1...♕b8, play 2.♗g1. But no, I don't like it.
12:00 Maybe g3 does work. 1.g3 ♘e5 2.♕e2 and I'm not sure what Black can do now. After Black moves the bishop, there is 3.f4.
13:00 Yes, I like 1.g3. If there are no tactics killing me, I am okay.

1.g3

Evaluation: +0.70

Julio Granda
Elo 2630

White could be better, looking at the pawn structure. The bishop on the c1-h6 diagonal inconveniences White. The pin is bothersome.
04:00 If I play 1.g3? ♘e5! is strong. 2.♕e2 ♗h6! 3.f4? ♕xe4! and Black is better.
05:30 1.g3 ♘e5 2.♕e2 ♗h6 3.♗e1 looks bad for White.
08:00 After 1.g3, White is worse. I am thinking of 1.♖cd1 getting the rook of the pin.
09:00 1.♖cd1 ♘e5 2.♕e2 This seems sensible for White. And then try and get rid of the pin later.
13:00 I would play **1.♖cd1**.

Evaluation: +0.40

Michael Adams
Elo 2701

00:45 The pin is quite annoying. Possible is 1.g3, but then comes 1...♘e5.

00:50 Possibly 1.♗g3.
01:30 Also possible is 1.♖cd1 getting the rook off the diagonal. But it is also useful where it is.
01:50 If I go 1.♗g3 and Black takes on e3 or g3, it looks a little better for White.
02:40 1.♗g3 ♗h6 looks like a funny square to go to.
04:30 Yeah. I very much need to get rid of that bishop on f4, and because g2-g3 is not possible, 1.♗g3 seems the best option.
05:30 The bishop on f4 is by far Black's best piece. If Black retreats, my bishop goes to d6, which is a great square for it. So clearly Black will exchange it by 1...♗xg3.
06:00 After 1.♗g3 ♗xg3 2.hxg3 I would give White a plus based on a better structure.

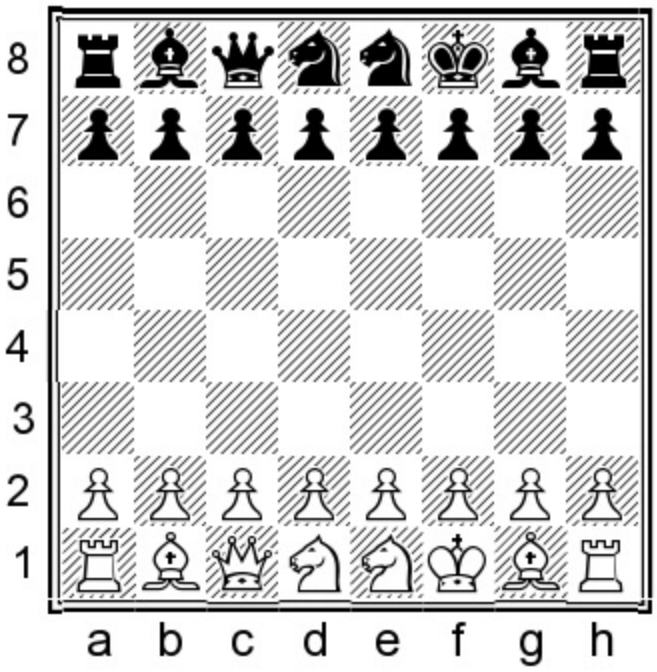
1.♗g3

Evaluation: +0.3

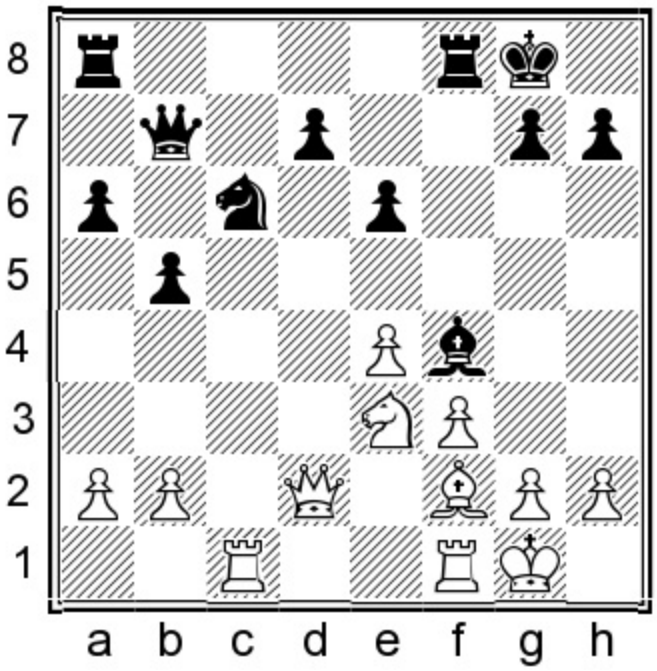
Deeper Analysis by Michael Adams

Magnus Carlsen – Hikaru Nakamura

Baerum (Chess960 – rapid) 2018



1.d4 c5 2.dxc5 ♕xc5 3.f3 ♕c7 4.♕d2 f5 5.c4 ♗xc4 6.♗xf5 ♘d6 7.♗c2 ♘c6 8.♖c1 ♗f7 9.♗b3 0-0 10.♗xf7† ♘xf7 11.e4 e6 12.♘e3 a6 13.♗f2 ♘fe5 14.♘d3 ♘xd3 15.♕xd3 b5 16.♕d2 ♕b7 17.0-0 ♗f4



The pin on White's knight is very annoying, and White needs to resolve this before undertaking active operations.

18.♗g3!

I don't like:

18.g3?

Weakening the kingside structure and leaving White with passive pieces.

18...♘e5 19.♕e2?

This fails tactically.

19.♔g2 is better, although 19...♗g5 20.♗g1 ♖ad8 is fine for Black.

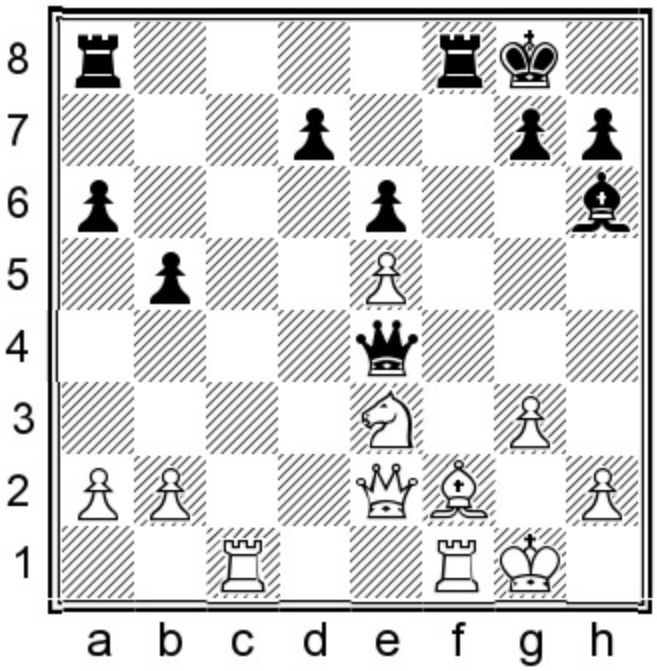
19...♗h6

19...♗g5 20.f4 ♕xe4! is similar.

20.f4

20.♗e1 also comes unstuck after: 20...♖xf3! 21.♖xf3 ♕xe4 22.♖f4 ♗xf4 23.gxf4 ♘f3† 24.♔f2 ♘d4 25.♕g4 h5 26.♕g3 ♖f8–+

20...♕xe4 21.fxe5



21...♖xf2! 22.♔xf2

22.♖xf2 ♗xe3–+

22...♖f8† 23.♔e1 ♖xf1† 24.♔xf1

Or 24.♘xf1 ♕xe2† 25.♔xe2 ♗xc1 26.b3 ♗b2 with a winning endgame.

24...♕h1† 25.♔f2 ♕xc1

White is a pawn down with an exposed king, so Black is winning.

18.♖fd1 ♘e5 is awkward, as 19.♗g3? loses to 19...♘c4.

18.♕e1 isn't a good place for the queen.

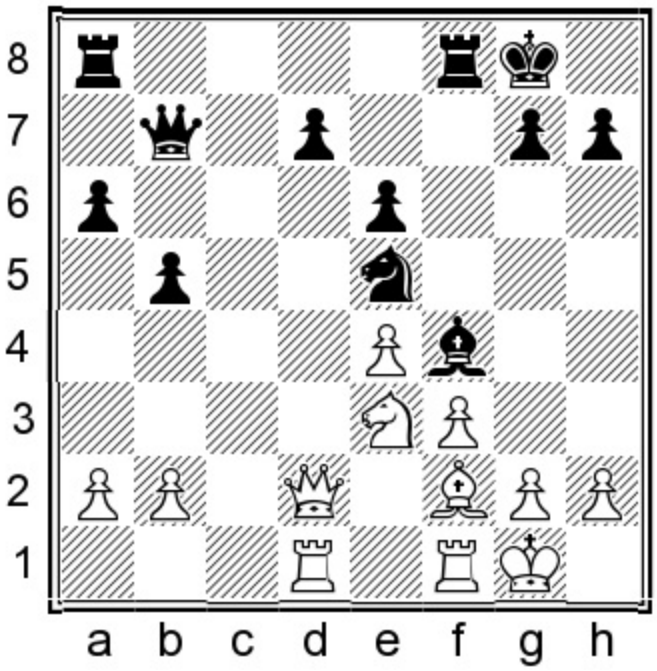
18.♔h1 is playable but a bit slow, and is not really necessary.

18.b3 also isn't an essential move, although if White follows with ♗g3 next he still keeps some edge.

18.♖cd1!?

I rejected this due to the feeling that the best places for my rooks would be c1 and d1, but the computer's endorsement means it should be taken seriously.

18...♘e5



19.♕e2!

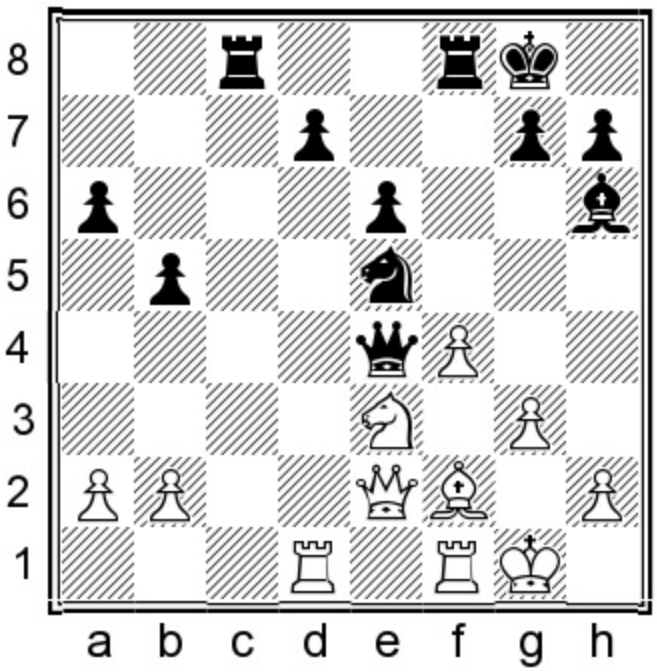
Completing the major-piece shuffle shows why the previous move was a decent idea. White has moved all his pieces off the c1-h6 diagonal, and may now be able to think about expelling the bishop with g2-g3 in the future. However, there are some tactics to take into account.

19...♖ac8 20.g3 ♗h6?!

Objectively the best continuation is 20...♗xe3 21.♗xe3 ♖c6 22.♗d4 ♘f7 23.♖d2 when White keeps a small edge.

21.f4 ♕xe4

It would take careful calculation to realize that Black's tactical combination doesn't work – especially when assessing it from a distance.



22.fxe5 ♖xf2 23.♔xf2 ♖f8† 24.♔e1 ♗xe3

24...♖xf1† 25.♘xf1+–

25.♖xf8† ♔xf8 26.♖d3 ♕h1† 27.♕f1†

White wins.

18...♗xg3

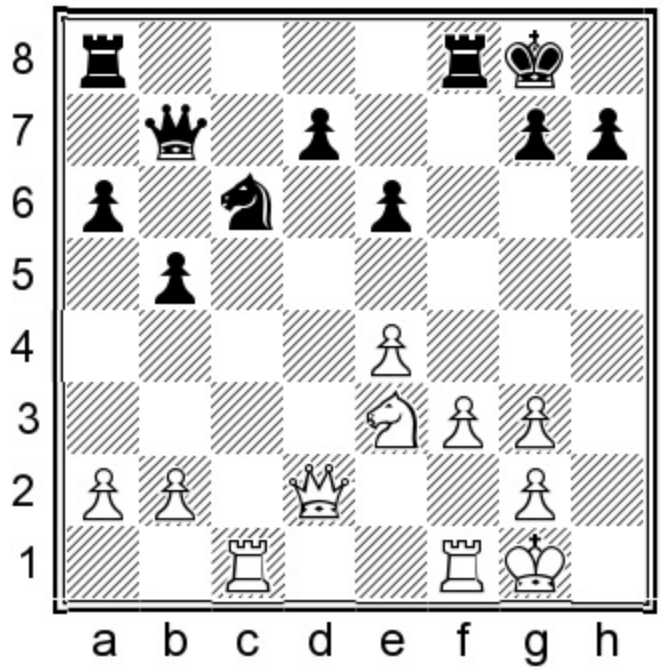
18...♗xe3†? 19.♕xe3 followed by ♗d6 is excellent for White.

18...♗h6? 19.♗d6 ♖f7 20.f4 takes control: White's bishop is perfectly placed, while Black's is blunted.

18...♕a7 19.♗xf4 ♖xf4 20.♔h1 gives White a much better structure. The d7-pawn is sensitive, and Black's position feels very loose.

19.hxg3

Now White's king has a handy square on h2 to hide in the future, and the kingside pawn mass is quite useful, controlling a lot of squares. White can continue to improve his pieces by means of ♘g4 or ♖fd1.



19...♖ac8 20.♘g4

I prefer 20.♖fd1!, pressuring the pawn on d7 immediately. For instance, 20...♕b6 (or 20...♖fd8 21.♕d6 ♕b6 22.♔f2±) 21.f4 ♘e7 22.♖xc8 ♖xc8 23.♔h2 with a clear advantage for White.

20...♘e7 21.♕g5 ♘g6 22.♖xc8 ♖xc8 23.♖d1 ♖c2 24.♕d8† ♘f8

This position will be featured in Puzzle 32, so the remaining moves will be featured in the solution there.

Scoring for Puzzle 30

Best move	Score	Evaluation
1.♗g3	**10**	**+0.5**
1.♖cd1	8	+0.3
1.b3	8	+0.3
1.♖fd1	1	0
1.g3	1	0
1.Others	1	

Bonus points for correct evaluation

Between +0.1 and +0.29	2 points
Between +0.3 and +0.89	**3 points**
Between +0.9 and +1.39	1 point
Any other evaluation gets	0 points

Puzzle Commentary by Phil

After two-and-a-half minutes' thought, Carlsen played 1.♗g3!, which is given as the best move by the computer. Once you delve into the position, you will find that the move is quite logical, and you can see how top grandmasters converge on the same solution following a methodical thought process.

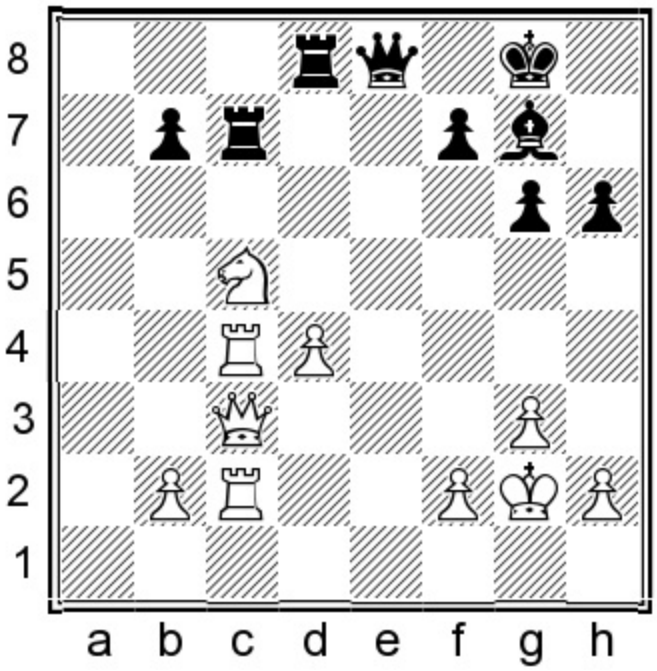
Adams Insight

The bishop on f4 is very annoying, and the instinctive reaction that White should swap it with 1.♗g3 is good. White shouldn't be concerned about the doubled g-pawns that will likely result: they will make the white king quite cosy, and White may be able to advance the pawn mass on the kingside with f3-f4 or g3-g4 later.

The less intuitive option of 1.♖cd1 followed by ♕e2 to work around the f4-bishop before challenging it has a slightly different approach. Instead of swapping the strong enemy bishop on f4, White aims to make it less influential, but the idea feels less natural and a bit slow to me. It's important to note that

lines where White expels the bishop with g2-g3 are quite risky, as this pawn move makes White's kingside vulnerable.

Puzzle 31



Black to play – Level 9

Show/Hide Solution

Puzzle 31 – Total Chess

Taran Jina
Elo 1912

00:30 1...b6 comes to mind. There may be also some tricks taking on d4.
01:00 I feel I can exchange with 1...♖xc5. Ah, no.
02:00 1...♖xd4 2.♖xd4 b6 and the knight can't move.
02:30 Following the above line, 3.♕e3 maybe.
03:20 Haven't found anything concrete. Let's see non-tactical moves. For example 1...h5.
05:00 The most tempting continuation is 1...b6 2.♘b3 ♖xc4 3.♕xc4.
05:30 Or maybe something really boring, like 1...♕c6† with the idea of 2...♕d5.
06:30 I am looking at ways in which White can improve his position. Hang on! Why can't I play 1...♖xc5 2.♖xc5 ♗xd4?
06:45 That's probably really equal, I imagine.
07:50 I reckon 1...♖xc5 2.♖xc5 ♗xd4 and it's fairly equal.

09:20 I go for 1...♖xc5.

Evaluation: +0.2

Akshaya Kalaiyalahan
Elo 2149

01:00 I've been looking at 1...♕c6† followed by ...♕d5.
02:00 I am now looking at 1...♖xc5 but still haven't fully rejected 1...♕c6† though.
04:30 I've rejected 1...♖xc5 because of 2.♖xc5 ♕e4† 3.f3. I am still mainly looking at 1...♕c6†.
06:25 I think I am going to play 1...♕c6† followed by 2...♕d5.
06:30 1...♕c6† 2.♕f3 might lead to a draw.

1...♕c6†

Evaluation: +0.20

Juan Reyes
Elo 2451

00:30 The first move that comes to mind is 1...♖xc5 followed by 2...♗xd4, regaining the pawn and making a draw.
Let's see if 1...b6 yields anything. 1...b6 and where do you move the knight?
01:15 Ah, look! There is another way to get a draw: 1...♖xd4 2.♖xd4 b6
02:00 Oh no – after 2...b6 the queen can simply move to e3, and I am down on material.
02:30 Can I play 1...b5? No, I can't.
03:30 Let's have a look at some more tactical variations. I know I have a draw with 1...♖xc5, but I think there is more.
07:00 The thing is that I don't see it. 1...♖dc8 with the idea of 2...b6, but White can simply play 2.♕b3.
08:00 I have the feeling there is a tactical shot here, putting pressure on d4 somehow. But I can't see it.
10:30 If I had to play now, I would play 1...♖xc5 followed by 2...♗xd4 with an equal position.
11:30 I can't see a win with either 1...b6 or 1...b5.
(Thinks a bit longer.)
13:00 Ah!! Finally! I've seen the winning move! I win!
13:15 1...b5!! 2.♖b4 ♖xc5 3.♕xc5 ♗f8! followed by 4.♕xb5 ♗xb4.
13:20 And White cannot retake with 5.♕xb4 because I have 5...♕e4† picking up the rook on c2.

1...b5

Evaluation: Black wins

Julio Granda
Elo 2630

01:00 The position is complicated. Not at all easy. I can't tell who is better at this moment.
In this position, if there is nothing tactical for Black he is going to end up in a worse position.
02:00 The moves I am looking at are 1...♕c6†, 1...b6, and 1...b5.
02:30 1...b5, right now, looks quite interesting. It forces the rook off the c-file and might lead on to some tactical ideas.
03:15 As I say, if there isn't anything tactical, White is better. 1...b5! 2.♖b4 ♖xc5! is good for Black. If 3.♕xc5 ♗f8! 4.♕xb5 ♗xb4, and if 5.♕xb4 ♕e4† wins.
03:00 Yes, 1...b5 is the move.

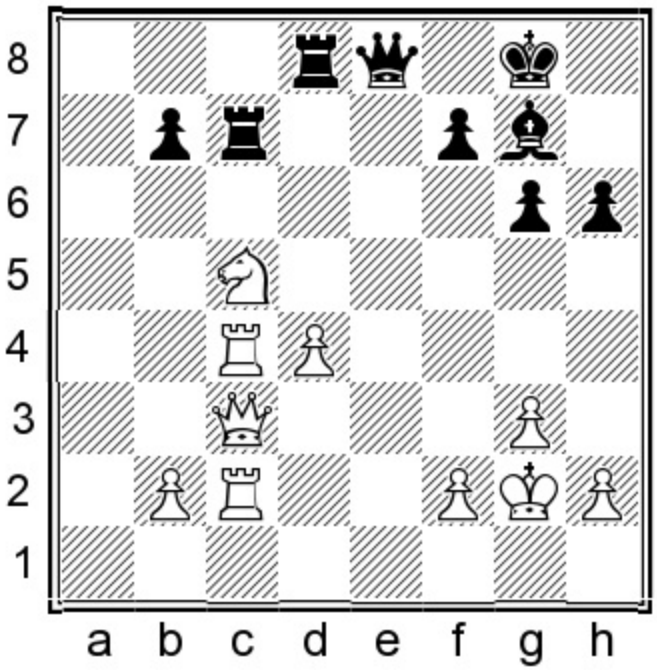
Evaluation: Black wins.

Deeper Analysis by Michael Adams

Le Quang Liem – Michael Adams

Tromso (Olympiad) 2014

1.d4 ♘f6 2.c4 e6 3.g3 d5 4.♗g2 ♗b4† 5.♗d2 ♗e7 6.♘f3 c6 7.♕b3 0-0 8.0-0 ♘bd7 9.♖c1 a5 10.♗g5 h6 11.♗xf6 ♗xf6 12.♘a3 ♕e7 13.e3 ♖d8 14.♖ab1 g6 15.♕c2 ♗g7 16.♖d1 ♘f6 17.♘e5 ♗d7 18.♘xd7 ♖xd7 19.♖d2 e5 20.dxe5 ♕xe5 21.♖bd1 ♖ad8 22.cxd5 ♘xd5 23.♘c4 ♕e6 24.♗xd5 cxd5 25.♘xa5 d4 26.exd4 ♕xa2 27.♘b3 ♕a4 28.♖a1 ♕b4 29.♕c3 ♕b6 30.♖a4 ♕e6 31.♘c5 ♕e1† 32.♔g2 ♖c7 33.♖c2 ♕e8 34.♖c4



The problem here is realizing how good Black's position is, as it is far from obvious that the clumsy nature of White's pieces mean that something is dropping off. This was made more difficult during the game, by the fact that throughout the previous moves I had been aiming to neutralize some mild pressure. Steering the game towards a draw seemed the most I could hope for. Fortunately, this didn't prevent me from spotting the right idea when an unexpected opportunity transpired – somewhat unfortunately for my opponent, who had made pretty natural moves throughout the game.

34...b5!

Most of the alternatives drift towards equality:

34...♖xd4?? 35.♖xd4 b6 36.♖e4+– is no good.

34...♖xc5 leads to equality after 35.♖xc5 ♗xd4 – but not 35...♕e4†?, which is easily refuted by 36.♕f3 or 36.f3.

34...♕c6† 35.♕f3 ♖xd4 also heads towards a draw.

34...♖dc8 35.♕d3 b6 36.♘b3 ♖xc4 37.♖xc4 ♖xc4 38.♕xc4 ♕e4† offers Black enough activity to maintain the balance.

34...b6!? 35.♘b3 ♖xc4 36.♕xc4 ♕e4† 37.f3 ♕f5 gives good compensation for the pawn.

34...h5!? is a bit slow, but maintains adequate compensation.

35.♖b4

35.♕a5 ♕c6† 36.d5 ♖xd5 leaves the rook hanging and a discovered check threatened. If

37.♘e6!? then 37...♖c5† (or 37...bxc4 38.♕xc7 ♕xe6–+) 38.f3 bxc4 and Black wins easily with the extra piece.

Thus the game continuation is forced, but now Black's bishop takes a starring role to exploit the awkwardly placed major pieces on dark squares.

35...♖xc5!

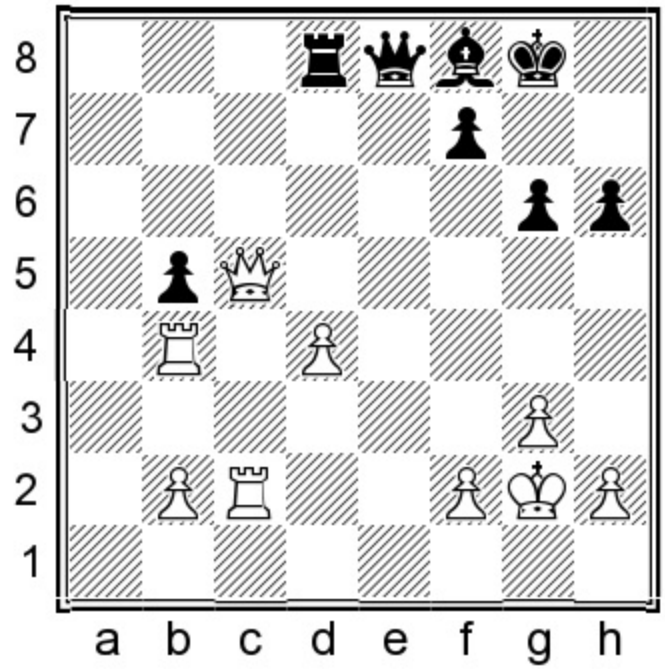
The only way to justify Black's last move.

36.♕xc5

Again White has no choice, as the other recapture loses the queen.

36...♗f8!

It's unusual for such a modest retreat to be so powerful. The bishop has the queen and rook in its sights, and White's overworked queen is unable to hang on to both rooks.



37.♕xb5

Material also drops off after 37.♕c6 ♗xb4, 37.♕e5 ♗xb4, or 37.♕c3 ♗xb4 38.♕xb4 ♕e4†, all of which are easily winning for Black.

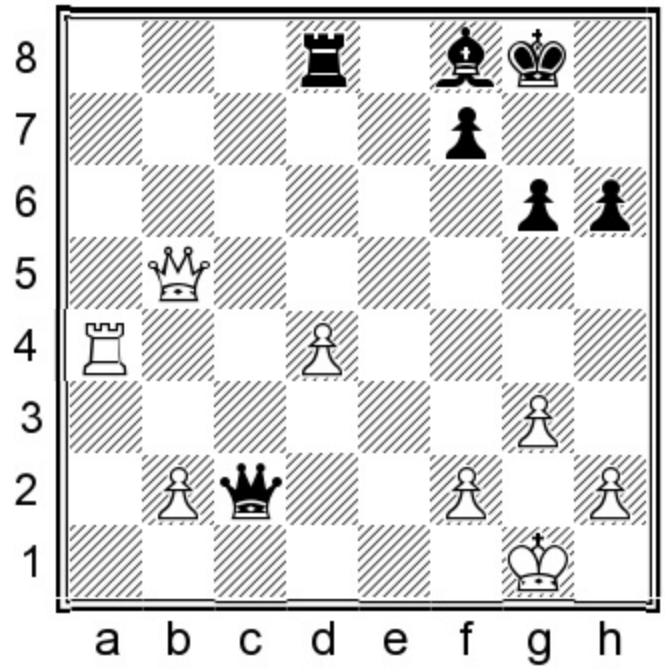
37...♕e4†!

Picking up the loose rook on c2 in order to leave the other rook misplaced on b4.

This is an even better way to secure the material than 37...♗xb4 38.♕xe8† (38.♕xb4? ♕e4† leaves Black a rook up) 38...♖xe8 when the extra piece will eventually decide, but White has two pawns for it and can resist for a while.

38.♔g1 ♕xc2 39.♖a4

39.♖c4 ♕b1† 40.♔g2 ♕e4† is similar.



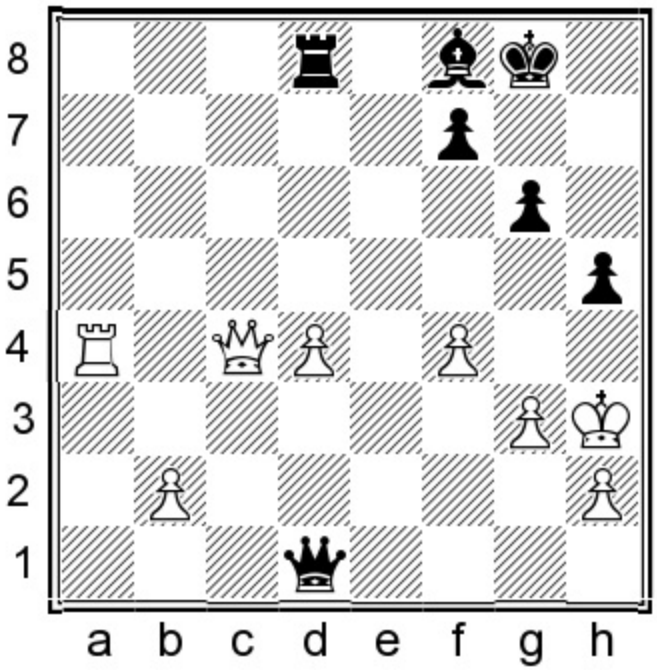
39...♕b1† 40.♔g2 ♕e4† 41.f3

41.♔g1 ♖xd4–+

41...♕c2† 42.♔h3 ♕d1 43.f4 h5

43...♖xd4 is also fine but the text move emphasizes White's uncomfortable king position, and I had already seen the pretty game conclusion.

44.♕c4



44...♖xd4!

A crisp way to wrap up. In view of 45.♕xd4 ♕f1† 46.♔h4 ♗e7† White resigned.

0–1

Scoring for Puzzle 31

Best move	Score	Evaluation
1...b5	**10**	**–4**
1...♕c6†	2	–0.2
1...b6	1	0
1...h5	1	0
1...♖xc5	1	+0.2
1...♗f8	1	+1.3
1...♖xd4	1	+1.5
1...Others	1	

Bonus points for correct evaluation

Lower than –2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This was a surprisingly hard puzzle to solve, as the position appears deceptively simple. When you start looking at all the combinations, you realize there are multiple ways of capturing White's pieces but none seem to give any advantage. Even though my intuition told me there was a strong idea somewhere, I still could not find it.

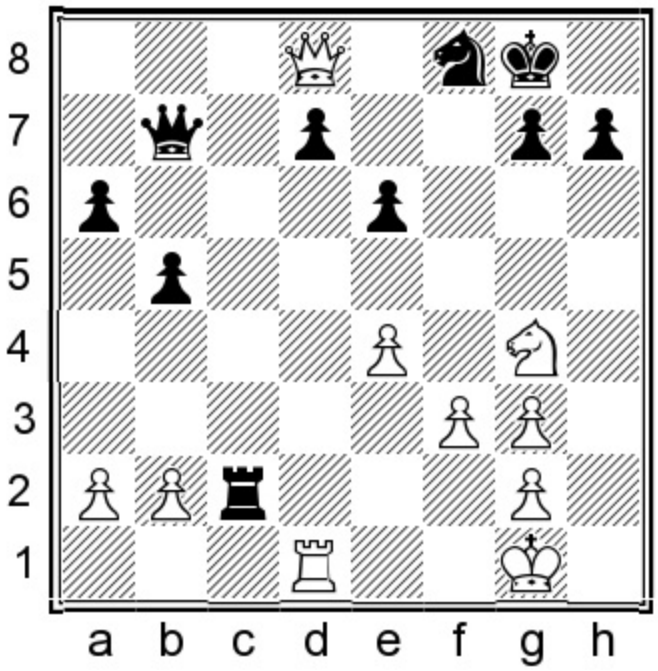
This puzzle requires breadth of vision and was only solved by IMs and GMs. The winning idea combines a series of moves that involves the participation of almost all of Black's pieces around the whole board. Black's third move in the combination is practically impossible to find for club players.

Adams Insight

I was happy I found this unusual tactic, which showed up rather unexpectedly in what had been a fairly grinding, technical game up to that point. I wasn't the only one to appreciate this idea: none other than Garry Kasparov came up to me at breakfast the next day to mention how much he liked the rare combinational concept! Black has to disturb the balance of White's pieces which are currently

well coordinated, and then set up the backwards bishop move, which is not so easy to envisage from the starting position. Driving White's rook off the c-file seems logical, but conceiving of the follow-up is not so simple.

Puzzle 32



White to play – Level 9

Show/Hide Solution

Puzzle 32 – A Move Only Grandmasters Seem To See

Nathanael Paul
Elo 1993

00:20 It appears Black is on the defensive. His knight is pinned.
01:10 Black has his rook on an ideal 7th rank and is attacking the queenside pawns. 1.♕g5 threatens 2.♘h6†.
01:50 1.♘e5 and 1.♕e7 ideas, going after the f7 weakness.
03:00 After 1.♘e5, 1...d6? loses. It seems 1.♘e5 is the natural move. It's threatening d7 and mate.
03:20 1.♘e5 ♕c8 (or 1...♖c8) 2.♕e7 and ♕f7† to follow.
04:50 After 1.♘e5, 1...♕c7 is annoying for White.
(Goes into deep thought.)
06:20 1...♕c7 is really annoying, actually.
(Goes into deep thought again.)

08:50 Either 1.♘e5 or 1.♕e7: Black can play 1...♕c7 and refute those ideas. So I am looking at 1.♕g5 threatening ♘f6† or ♘h6†.
09:50 A line I am looking at is 1.♕g5 ♔h8 2.♘h6. The point is 2...gxh6 3.♕f6† or 3.♕xh6, but I'm not sure if that really works.
11:10 1.♕g5 ♔h8 2.♕e7 ♔g8 and now play 3.♘e5.
11:40 1.♕g5 ♘g6 seems okay for Black, and I could get a perpetual.
12:10 Ideally I would like to push with 1.f4, but Black may come in. I have to look out for potential checks.
So 1.♕g5 ♘g6 with the likely outcome of a perpetual. I don't think Black has anything better.
14:40 Maybe 1...♕b6† but the queen cannot get in because the white knight protects f2.
My final move is **1.♕g5**.

Evaluation: The position is equal. (0.00)

Akshaya Kalaiyalahan
Elo 2149

01:00 I am looking at 1.♘e5 and attacking, somehow, on the kingside.
03:45 Also looking at 1.♕g5, but I don't really see how to progress after 1...♖xb2. Still thinking about it though.
04:30 I reject 1.♘e5 due to 1...♕c7.
05:30 I think I would play 1.♕g5 in this position.
06:00 I think after 1.♕g5 Black might play 1...♔h8 or 1...♖xb2.
I think White is better.

1.♕g5

Evaluation: +1.0

Keith Arkell
Elo 2429

00:05 All the pieces seem slightly disconnected.
00:25 Black can't take on b2, as after 1...♖xb2 2.♖c1 would be fairly strong.
00:55 1.♘e5 ♕a7† 2.♔h2 ♕f2 3.♖g1 stops all the threats. But it's complicated.
01:55 Should I move my king first? Say, 1.♔h2.
02:30 1.♔h2 might be a decent move. 1.♔h2 ♖xb2 2.♖c1 is winning.
02:45 My candidate moves here are 1.♔h2, 1.♘e5, 1.♕e7 and 1.♖d6.
1.♖d6 ♖c6 may be too subtle. Let's check 1.♘e5.
03:30 1.♘e5 ♕a7† 2.♔h2 ♕f2 3.♖g1. No. I don't like 1.♘e5.

04:45 1.♖d6 ♖c6 2.♖d2 ♖c8 3.♕g5 ♘g6 The knight is coming out, and I'm not sure if White is still better here.
(Thinks in silence.)
07:45 My move is 1.♔h2, by elimination. I can't make any of the other moves work.

1.♔h2

Evaluation: +0.4

Julio Granda
Elo 2630

00:15 The material is equal, but I have the feeling there must be 'something'.
01:00 White has a very active queen. But Black's rook on c2 is also active and can at some point contribute towards an attack on g2. The position is certainly complex.
01:30 Black can play ...♖c8 to expel the queen from her menacing position.
02:00 The most logical move here is 1.♔h2, to avoid the queen check on a7 when I play ♘e5.
(Goes into deep thought.)
05:30 1.♔h2 and the queen is free to go to e7 and cause trouble together with ♘e5.
06:20 1.♔h2 ♖c8 2.♕e7 ♕c7, but the resulting endgames from here onwards are bad for Black.
07:10 1.♔h2 with an evaluation of +1.0 just because of the active position of the queen and the attacking prospects.
09:00 1.♔h2 ♕c7 2.♕g5 to avoid exchanging queens, and if 2...♘g6, it seems that 3.f4 with the idea of f4-f5 is strong.
09:50 It is worth noting that the 'Ruy Lopez knight' on f1, or f8 for that matter, is generally badly placed. I know because I had to suffer it more than once in my games! The bishop on f1, however, is a good piece. But not the knight. And even when it jumps to g6, it is still badly placed. I still have bad memories of losing a game against a 2300 player because I put my knight on f1.
09:55 1.♔h2 and Black is a bit tied up.

Evaluation: +1.0

Michael Adams
Elo 2701

00:30 White is looking for some attacking move.
00:40 1.♕g5, 1.♘e5 and 1.♕e7 are possible moves.
01:20 1.♘e5 ♕a7†, followed by ...♕f2, is not great for White. So White has to keep f2 under cover for the time being.
01:30 1.♕g5 maybe.
02:00 1.♕e7 is pinning the d7-pawn and threatening ♘e5, but 1...♕c7 or 1...♕a7† could be good

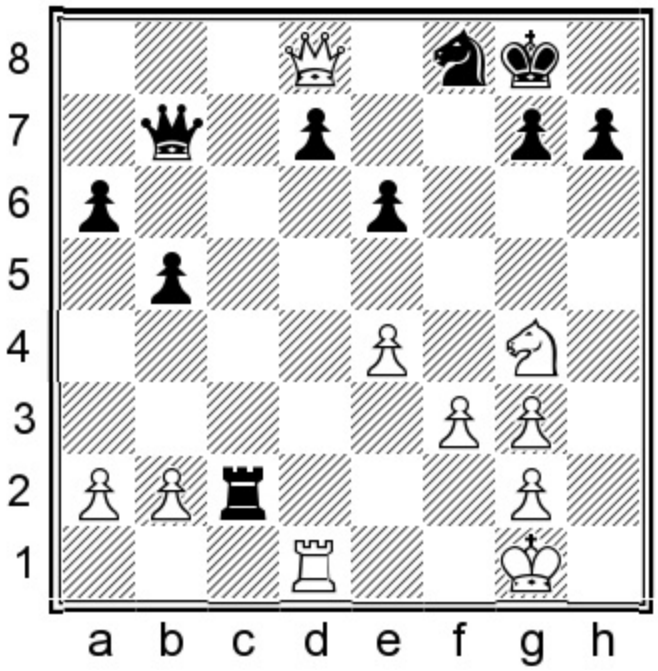
enough.
02:35 White could just start by moving his king to h2, preventing any immediate checks.
03:45 1.♔h2 ♖xb2 looks like it should lose for Black, after 2.♖c1 or 2.♘e5.
05:20 I could play 1.♖d6, but it doesn't amount to anything after 1...♕a7†.
08:45 1.♘e5, again: 1.♘e5 ♕a7† 2.♔h2 ♕f2 3.♖g1. No, that can't be right.
09:40 If 1.♔h2, probably Blacks plays 1...♕c7.
10:20 1.♔h2 ♕c7 2.♕xc7 ♖xc7 3.♘e5 ♖c2 4.♖d6 and the black knight is dominated.
12:15 White can start with **1.♔h2**. I think this is the best move.

Evaluation: +0.6

Deeper Analysis by Michael Adams

Magnus Carlsen – Hikaru Nakamura

Baerum (Chess960 – rapid) 2018



Judging the moment where you are not quite ready for aggressive action, but instead have a handy quiet move to simply improve your own position, is the theme here.

1.♔h2!

White has the more active pieces, as well as a better structure and the safer king, due to superior pawn cover on the kingside. The advantage is not that serious, but Black has to be much more accurate in practice, so maximizing the difficulties he will face is important. Intuitively, I felt that with limited material remaining, there is no immediate way to launch a successful attack, especially as queen checks will be a handy defensive resource for Black, and the rook on c2 can also be a

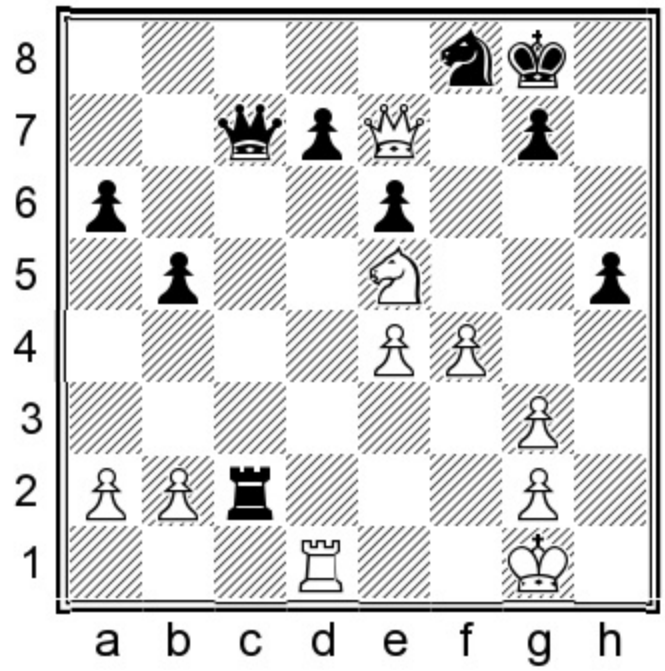
problem. Therefore it's logical to tuck White's king away, improving the position and leaving Nakamura with tough calculation and judgement decisions to make. Putting the ball in the opponent's court often pays dividends in praxis in such situations, and here it caused Hikaru to react uncertainly. It's noticeable that after other moves Black often alleviates his problems with a check at one moment or another, and the king move removes this resource.

1.♘e5?! is too hasty as the knight has an important defensive influence on g4, keeping f2 under control. 1...♕a7† 2.♔h2 ♕f2 3.♖g1 ♕c5 and Black is fine.

1.b4 h5 2.♘e5 ♕a7† 3.♔h2 ♕f2 leaves the white king vulnerable.

1.♖d6 ♕a7† 2.♕b6 ♕xb6† 3.♖xb6 ♖xb2 4.♖xa6 ♘g6 allows Black's knight to dominate its counterpart.

1.♕e7?! ♕c7 2.f4 h5 3.♘e5 runs into a nice tactical shot:



3...♖xg2†! 4.♔xg2 ♕c2† 5.♔h3 ♕xd1 6.♕f7† ♔h7 White needs to find 7.g4!, the only move to avoid defeat.

1.♕g5

This was a popular choice among the solving panel, and quite a dangerous move.

1...♕c8!

If Black finds this ice-cool response, White doesn't have much.

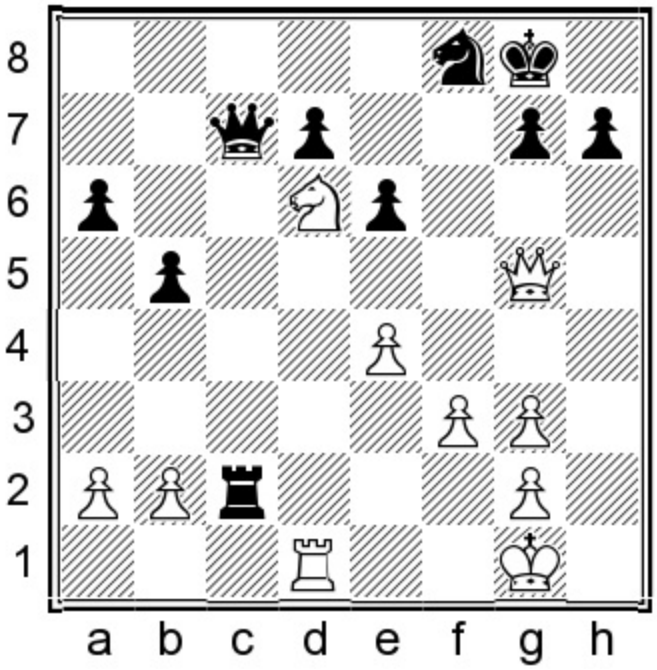
1...♔h8?! 2.♕e7! is strong.

1...♕c7 is also sensible, when 2.♘h6† (2.♘f6†?! ♔f7! leaves White without a good follow-up) 2...♔h8 3.♕e7 ♕c5† 4.♕xc5 ♖xc5 5.♘g4 is just a little more comfortable for White.

2.♘h6†

2.♘f6† ♔f7! and there is no way forward.

2...♔h8 3.♘f7† ♔g8 4.♘d6 ♕c7



5.♔h2

5.♕e7? ♕c5† gives Black at least a draw with the option to play for more.

5.♘e8 ♕c5† 6.♕xc5 ♖xc5 also solves Black's problems.

5...♘g6

Black is doing fine, as 6.♘e8? can be refuted by 6...♕e5!.

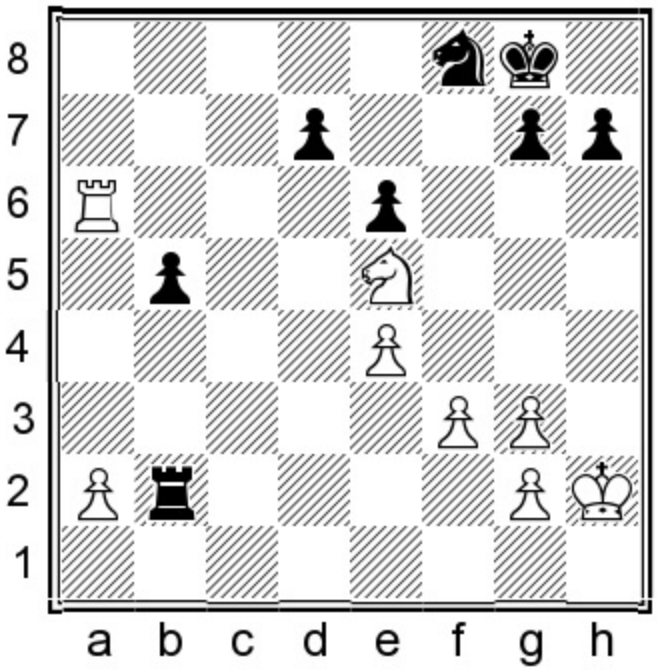
1...♖c5

Preventing ♘e5, but there are better, albeit hard-to-spot, ideas.

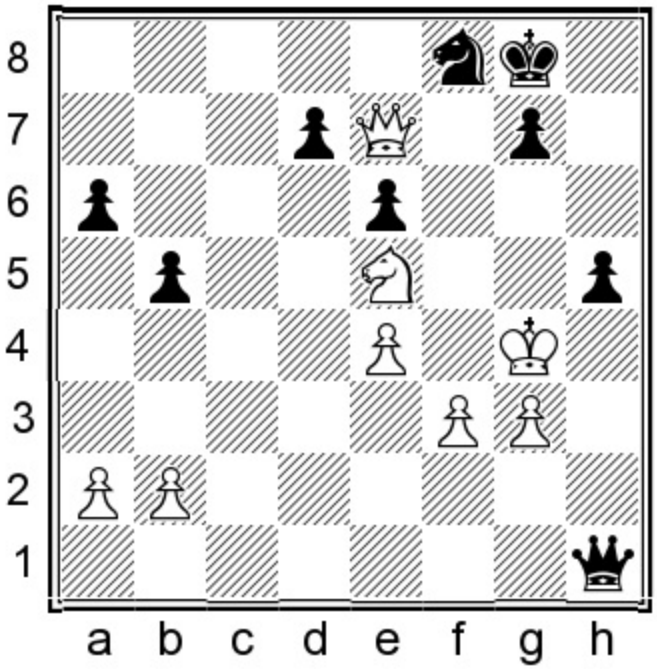
Black can't grab the pawn: 1...♖xb2? is refuted by 2.♘e5 (2.♖c1 is also more than good enough). For instance, 2...d5 3.♖c1 dxe4 4.♖c8 and White wins.

1...♕c8 is similar to 1...♕c7 below, and may well transpose.

1...♕c7!? 2.♕xc7 (Julio mentioned 2.♕g5 here, but 2...♘g6 is okay for Black) 2...♖xc7 3.♘e5 ♖c2 4.♖d6 ♖xb2 5.♖xa6 Compared to the 1.♖d6 line, now White's knight is in charge, and it looks like this will result in a lot of suffering for Black.



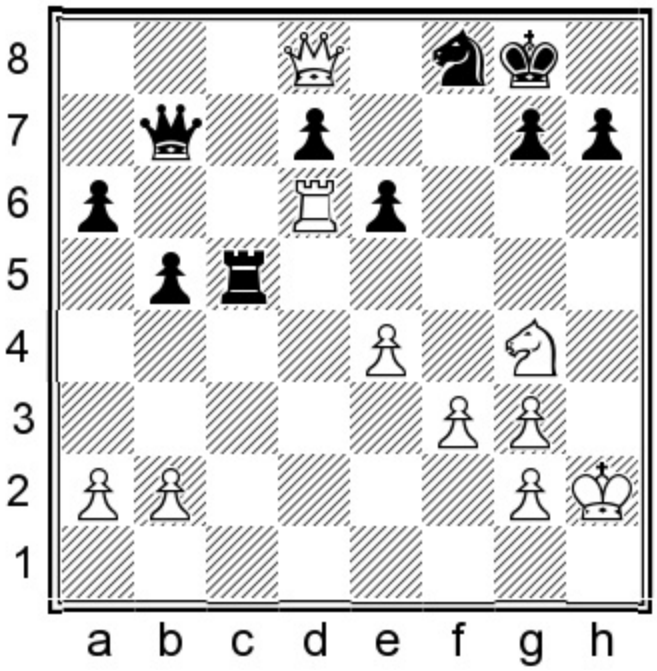
However, the important move 5...g5! gains some vital space for the black king, and he should hold despite the ugly pawn structure. However, this is a difficult line to find and trust.
1...♕c6!? looks suicidal, but the computer indicates the following drawing line: 2.♘e5 ♖xg2† 3.♔xg2 ♕c2† 4.♔h3 ♕xd1 5.♕e7 (5.♕e8 ♕d6 holds on) 5...♕h1† 6.♔g4 h5†



7.♔g5 (7.♔f4?? ♕c1 is mate!) 7...♘h7† 8.♔g6 ♘f8† 9.♔g5 ♘h7† With perpetual check.

2.♖d6

2.b4! was a good option here, forcing Black to commit the rook. 2...♖h5† 3.♔g1 ♕a7† 4.♘f2 leaves it sidelined on the kingside with no obvious route back.



2...b4

2...♕a7 3.♕b6 ♕xb6 4.♖xb6± also leaves Black under pressure.

3.♖b6 ♕a7 4.e5

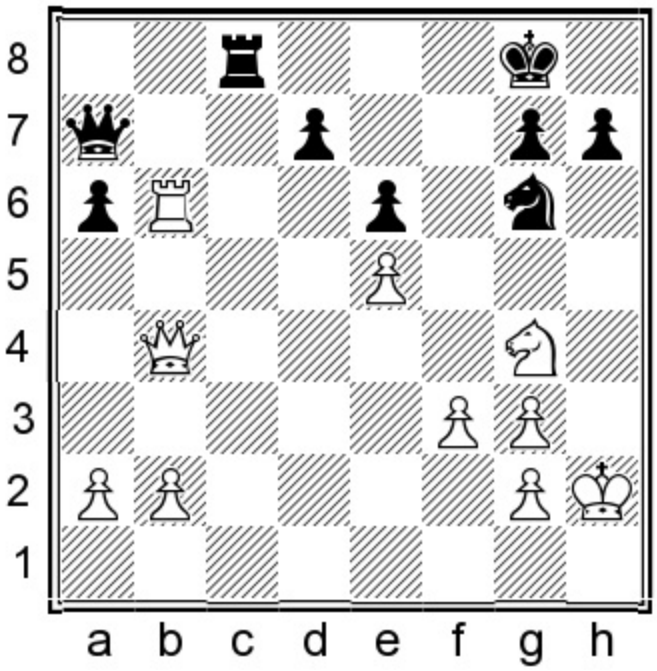
4.♕b8± would have forced the queens off, leaving Black with a tough endgame ahead.

4...♖c8

4...♖b5! was more resilient.

5.♕e7 ♘g6 6.♕xb4

White has won a pawn, which Carlsen eventually converted to victory.



6...h5 7.♖b7 ♕c5 8.♕e4 hxg4 9.♕xg6 ♕d5 10.♖b3 gxf3 11.♖xf3 ♖f8 12.♖d3 ♕xe5 13.♖xd7 ♖f5 14.♖d8† ♖f8 15.♖d7 ♖f5 16.♖d8† ♖f8 17.♖xf8† ♔xf8 18.b4 ♕e2 19.a4 ♕a2 20.a5 ♕c4 21.♕b1 ♔g8 22.♕e1 ♔h7 23.♕e3 ♕xb4 24.♕d3† g6 25.♕xa6 ♕c5 26.♕b6 ♕h5† 27.♔g1 ♕d1† 28.♔f2 ♕d2† 29.♔f3 g5 30.♕xe6 ♕xa5 31.♔g4 ♕a8 32.♕f7† ♔h8 33.♕h5† ♔g7 34.♕xg5† ♔h8 35.♔h3 ♕a1 36.♕d8† ♔g7 37.♕e7† ♔g8 38.g4 ♕c3† 39.♔h4 ♕b2 40.♕e8† ♔g7 41.♕d7† ♔g6 42.♕d6† ♔g7 43.♕d5 ♔g6 44.♕g8†

1–0

Scoring for Puzzle 32

Best move	Score	Evaluation
1.♔h2	**10**	**+0.3**
1.♕g5	8	0
1.♔h1	8	0
1.♕e7	8	0
1.♖d6	8	0
1.b4	8	0
1.b3	8	0
1.♘e5	8	0
1.Others	1	

Bonus points for correct evaluation

Between –0.1 and –0.29	1 point
Between –0.09 and +0.09	2 points
Between +0.1 and +0.59	**3 points**
Between +0.6 and +0.89	2 points
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Watching the game online, I was amazed by White's totally unexpected quiet move 1.♔h2! in such a tense position. This is a move that only grandmasters seem to find. I tested this position with over a dozen club-level players. None of them could find it.

The first participant to find the solution to this puzzle was Julio Granda, who after a couple of minutes selected the correct move. I was impressed by how easy he found the solution, and told him he was, so far, the only one out of fifteen players to have found the right move. He immediately asked me who was the strongest player I had tested the puzzle with. I replied that so far it was him, but that I was going to test the puzzle with Michael the following week. "Do you think he will find 1.♔h2?" I asked him. "You can bet money he will," he replied.

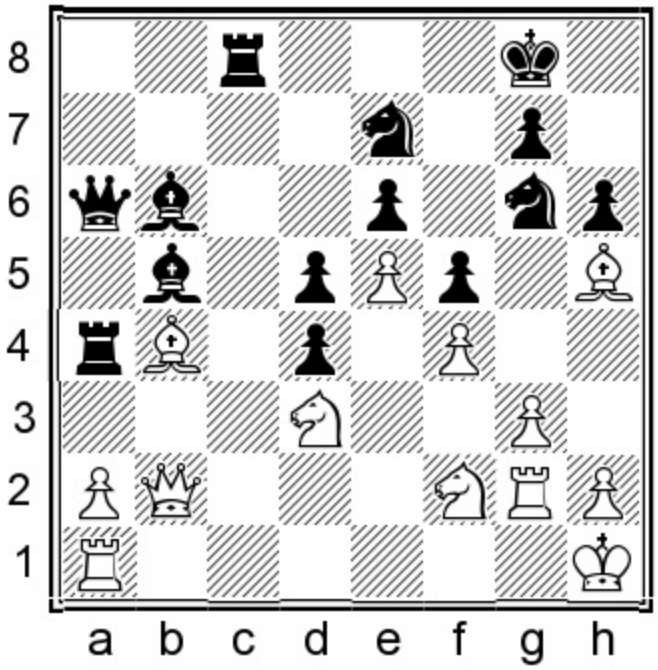
Adams Insight

There is no direct way forward immediately, so it is a good moment to tuck White's king away from annoying checks. White must be wary of Black's queen joining the active rook on c2 in an assault on White's king with gain of tempo. In practical terms, it is especially useful not to have to calculate checking lines, and Black will have to consider a number of potential attacking options, such as ♕g5 or ♕e7, which are reinforced by the elimination of defensive resources involving queen checks. Going for a more direct attacking line makes it easier for Black to react to a clear threat, whereas the king move leaves him with a more difficult choice. The ability to find small improving moves at the right moment is a crucial practical skill.

Positions 33-36

Contemplating Candidates

Puzzle 33



White to play – Level 9

Show/Hide Solution

Puzzle 33 – The Move That Made Charlie Champion

Tony Sadler
Elo 1893

00:50 A very tricky position.
01:15 Black is doing very well. That is my first impression. What is White going to do? He seems to be in all sorts of trouble.
01:40 1.♖c1 is my first idea. Although it leaves the a2-pawn unattended. Black is also threatening the

knight on d3.
The position looks horrible for White.
02:00 I reckon 1.♗xe7 could be a move. Which forces 1...♘xe7. Then I can play 2.♘b4, and attack the queen.
03:00 Another line, entirely different, is 1.g4 ♗xd3, trying to make use of the g-file.
(Calculates in silence.)
06:00 At the moment I am debating between 1.g4 and 1.♗xe7.
06:30 I would go for 1.♗xe7.
I feel White has some chances.

1.♗xe7

Evaluation: +0.5

Juan Reyes
Elo 2451

00:50 The knight on d3 is attacked twice. My rook on g2 looks silly. It seems I am worse.
Let's see if there are any tactics.
(Thinks in silence.)
01:45 I have a problem. Let's see, how do I solve it? What to do with the knight?
02:30 If I move my knight you have ...d3. I have to find something more active.
1.♖c1 is no good – he can just take my knight. What about ♗e2?
03:00 1.♗e2 ♘c6 Black could still be better.
03:30 1.♗xe7 is another possibility, but after 1...♘xe7 2.♘b4 ♕a5 Black is okay. I don't like this for White.
04:00 White's position isn't looking good. At the moment I have to decide between two lesser evils: 1.♗e2 or 1.♗xe7.
What about 1.a3? Could this be a trick for White?
05:00 No, it is not good. 1...♗xd3 2.♘xd3 ♕xd3 3.♗xe7 ♘xe7 4.♕xb6 ♕e4 and Black is clearly better.
07:00 I don't want to play passively, as Black is better. 1.g4 is no good though.
08:00 I will play 1.♗e2.

Evaluation: Black is better. (–1.0)

Michael Adams
Elo 2701

00:20 White is a pawn down. And the knight on d3 is attacked.
00:30 Doesn't look like an easy position for White.

00:40 1.♗d1 could be a resource.
01:20 The rook on a1 is tied to the defence of the a2-pawn, and retreating the d3-knight looks bad.
01:30 I guess I could defend with 1.♗e2 but it doesn't seem like a good idea, as I am already a pawn down.
01:45 1.♗d1 seems like the best option so far. The rook on a4 has no flight squares.
02:00 I feel 1.♗d1 has to be tried. It's not clear what Black's best reply should be.
03:00 1.♗d1 ♖xb4 2.♘xb4 could be a possibility. Black seems to have reasonable compensation.
04:00 Black could even leave the rook on a4 and let White take it.
05:00 I guess 1.♗d1 ♖a5, trying to get the dark-squared bishop, and then putting the black bishop on c3. 1...♖a5 looks like a strange move, but could be very effective.
05:30 It seems Black gets reasonable compensation. Although his knights are not too involved.
08:00 Okay, 1.♗d1 is the best move.
08:15 The position is quite difficult to assess. White's position doesn't look very pretty, but he does get the exchange.
08:30 The position is pretty balanced. Not really sure who is better. I am not even sure how to give up the exchange after 1.♗d1. White's position is very solid.

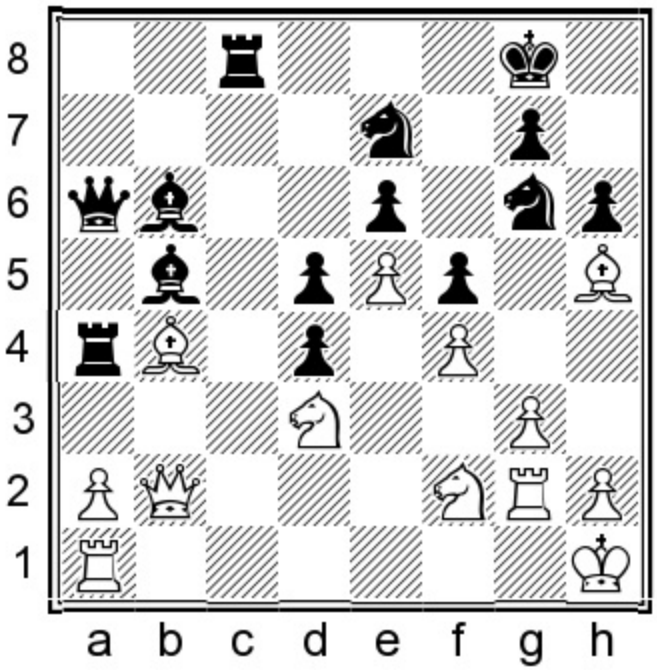
1.Bd1

Evaluation: –0.1

Deeper Analysis by Michael Adams

Charles Storey – Colin Crouch

Durham 1998



The imbalances in this position make it pretty tricky to navigate. It is mainly a test of your range of vision, the jumble of pieces on the board don't make it easy to find a strong backwards move, which are notoriously difficult to spot.

1.♗d1!

This bishop retreat, winning the exchange by trapping the black rook, is the only really useful move. It was commonly missed, perhaps due to the fact that it is a long-range tactical idea on a crowded board. The idea of meeting the threat to the knight indirectly, by attacking one of Black's pieces, may have been another factor in this being widely overlooked as a candidate move.
It would appear that Black should be able to give up the material in a convenient manner, and he will then have one pawn for the exchange, but it is not so simple. In many lines White can choose when to cash in, leaving Black in limbo. White's rooks don't look impressive at the moment, but they have potential. White may double on the g-line and break with g3-g4, or transfer his rooks to the other side of the board to control the open queenside files, depending on the circumstances.

1.♖d1? allows 1...♖xa2.

1.♕b1 is an unnecessary preparation for ♗d1. 1...♖c3 is one interesting response, when again White needs to return to the 2.♗d1! idea.

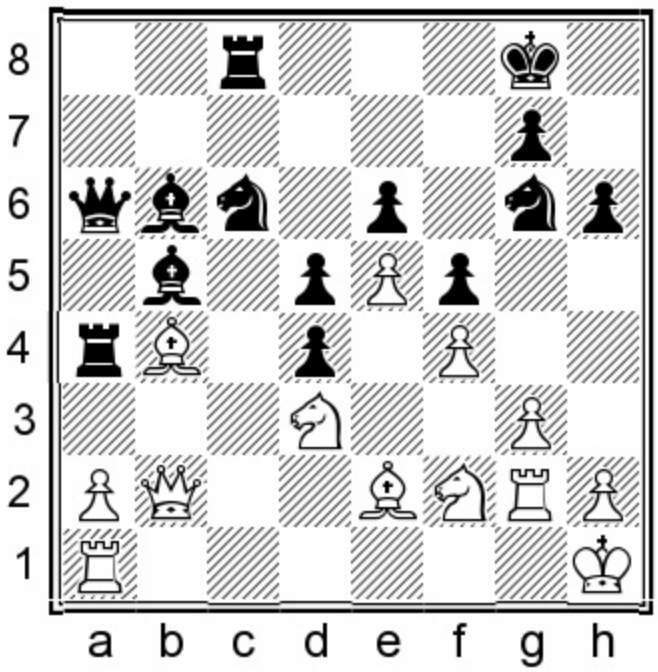
1.♗xe7? was a common but severely mistaken choice, swapping White's well-placed dark-squared bishop for a redundant knight on g6. 1...♘xe7 To make matters worse, now Black has access to the c3- and a3-squares, and after something like 2.♕b1 ♖a3 3.♘b4 ♕a7 Black has a decisive advantage.

1.♗e2

After this sensible alternative, I came up with a nice line with the help of the computer:

1...♘c6!?

1...♕a7 and 1...♗c4 are decent alternatives.



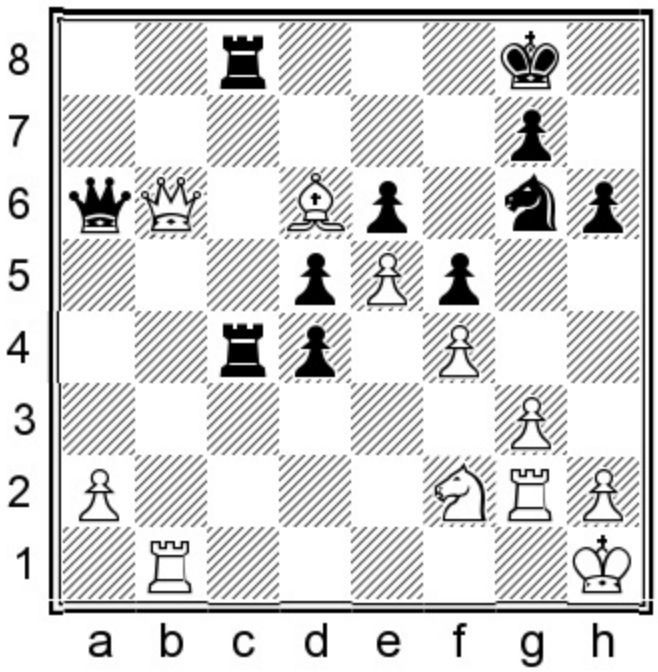
2.♗d6

In the event of 2.♗d1 ♖xb4 3.♘xb4 ♘xb4 4.♕xb4 ♗c5 5.♕d2 d3 the d-pawn gives Black the edge. For instance, 6.♗b3 ♗d4 7.♖d1 ♗c3 8.♕e3 d2 and Black is in control.

2...♘a5 3.♖b1 ♗xd3 4.♗xd3

4.♘xd3 ♘c4 5.♕b3∓ is the lesser evil, but the text move is the critical choice. Initially I struggled to understand why this didn't win a piece, but the machine produces some tactical magic:

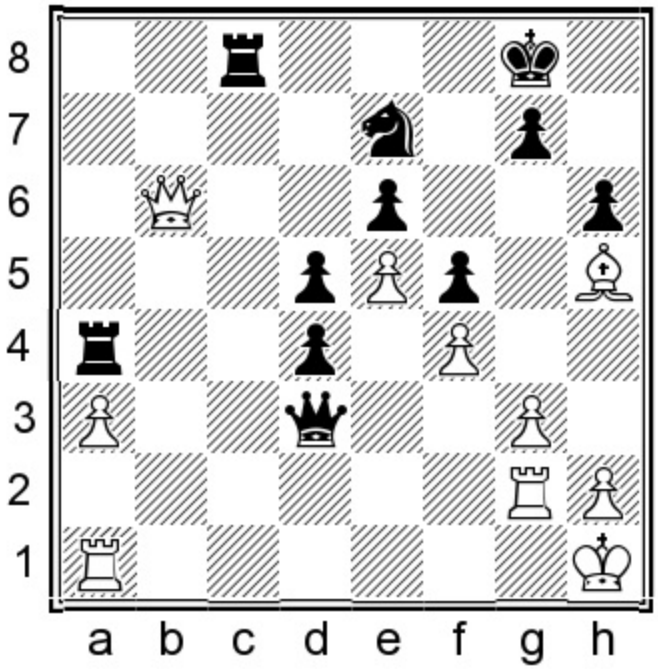
4...♘c4 5.♗xc4 ♖axc4 6.♕xb6



6...♖c1†! 7.♖g1 ♖xg1† 8.♔xg1 ♖c1†! 9.♔g2

9.♖xc1 ♕xb6–+
9...♕f1† 10.♔f3 ♖c3 Mate!

1.a3 was mentioned as a possibility by Juan Reyes. 1...♗xd3 2.♘xd3 ♕xd3 3.♗xe7 ♘xe7 4.♕xb6 and now Black has a pleasant choice:



a) Juan gives 4...♕e4 and says Black is doing well. This is correct, as 5.♕xe6† ♔h7 6.♕xe7 ♖c2 7.♖ag1 ♖xg2 8.♖xg2 ♖c4 9.h4 ♖c2 wins for Black.

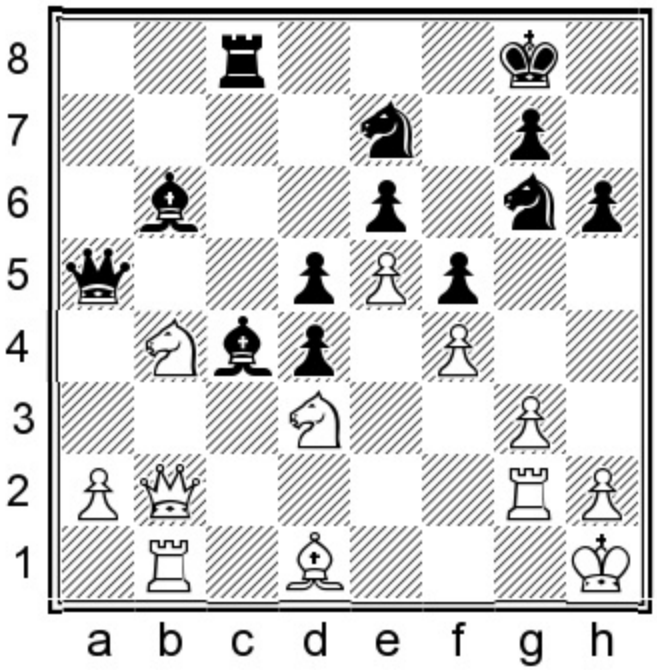
b) 4...♖ac4! is the quickest, but requires nerveless calculation. 5.♖e1 ♖c1 6.♖gg1 ♔h7 7.♕xe6 ♖xe1 8.♖xe1 ♖c2 9.♕xe7 ♕d2 and Black wins.

c) 4...♖a6! would be the most sensible practical option, defending e6 before going on the attack.

1...♖c4

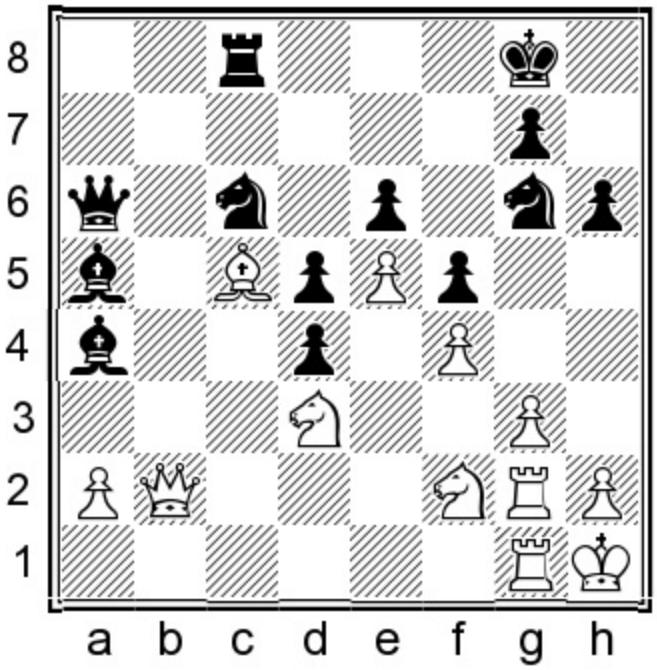
It is hard to decide on Black's best reply. Aside from the game continuation, there are three alternatives to consider:

1...♖xb4 2.♘xb4 ♕a5 3.♖b1 ♗c4 4.♘fd3



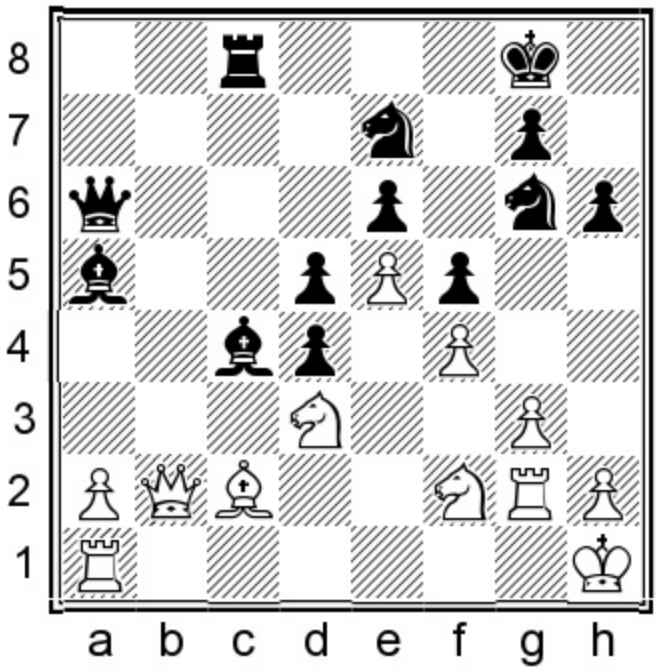
Black is fairly solid, but has to be aware of ideas of moving the d1-bishop followed by g3-g4. Any piece exchanges will increase the significance of White's small material edge.

1...♘c6 looks quite tempting, but after the sample line 2.♗xa4 ♗xa4 3.♗c5 ♗a5 4.♖ag1 Black's pieces stuck on the a-file aren't going to be much use if White can open the g-line.

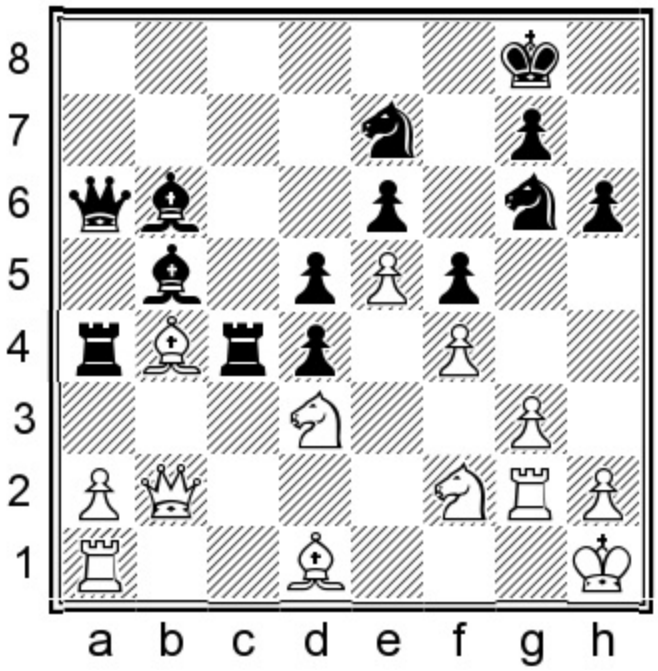


A possible continuation is 4...♗c3 5.♕b1 ♖b8 6.♕c1 ♗b5 7.♕d1 when Black hasn't achieved much with the one-move threats on the queenside, while White's pieces are all marshalled and ready for action on the other side of the board after g3-g4.

1...♖a5 forces White to concede the dark-squared bishop, but it is worth inserting the useful move 2.♗c2! first: 2...♗c4 3.♗xa5 ♗xa5



4.♖b1! (Avoiding 4.♕xd4? ♗b5!.) Now the rook is active on the b-file, and White's minor pieces connect harmoniously. An important idea is to meet 4...♗c3?! with 5.♕b6, which leaves White eyeing the weakness on e6.



2.♗xe7

An even stronger continuation is:

2.♗xa4 ♗xa4 3.♖b1

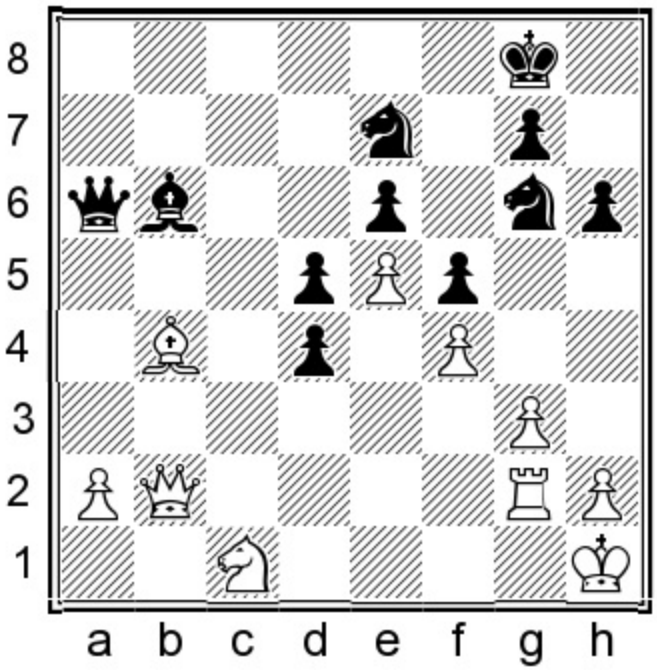
White may look a bit shaky, but actually it is the black pieces which are most off balance. For instance:

3...♗c2

3...♖c2 4.♕a3 ♘c6 5.h4 is good for White.

4.♖c1 ♗xd3 5.♘xd3 ♖xc1† 6.♘xc1

Despite appearances Black has nothing particularly promising here, and his knights have limited influence on the game. Here is a sample line:



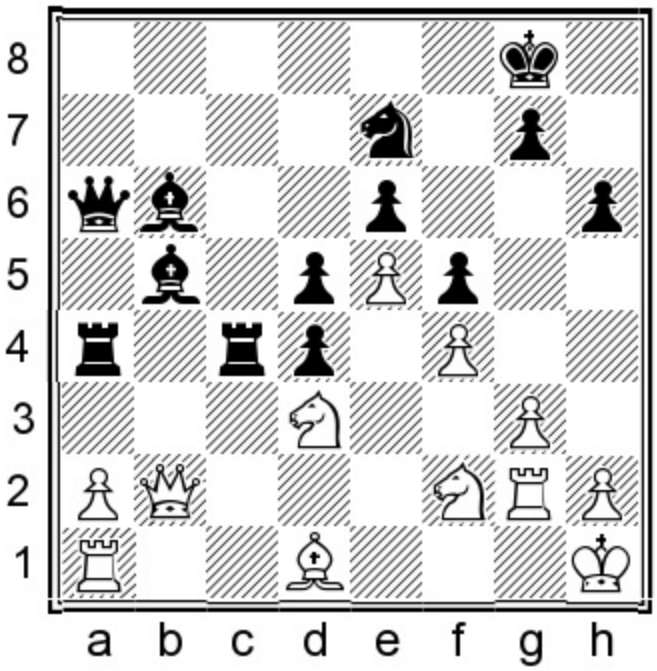
6...♕f1†

6...♘c6 is met by 7.a3.

7.♖g1 ♕f3† 8.♕g2 ♕e3? 9.♖e1!

Out of nowhere, the black queen is trapped!

2...♘xe7

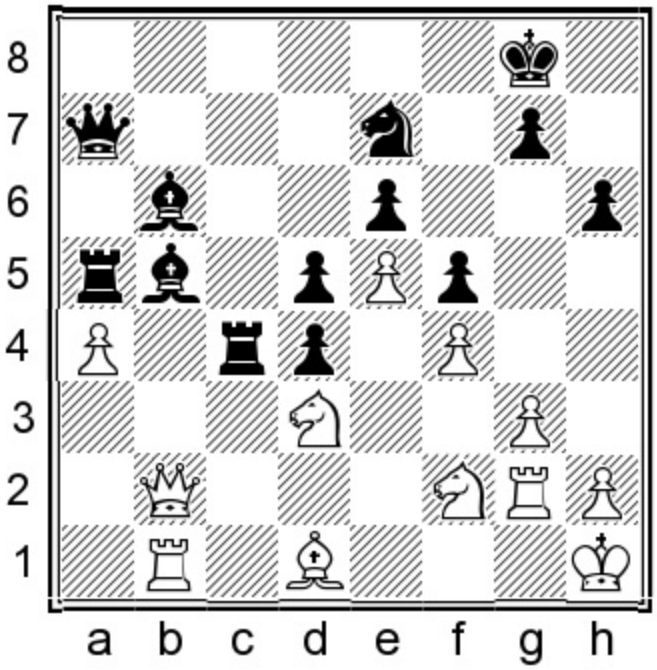


3.♖b1!

Ignoring the rook to target the awkward stack of bishops.

3...♖xa2

Black could have resisted better with the last-gasp defence: 3...♖a5! 4.a4 ♕a7!



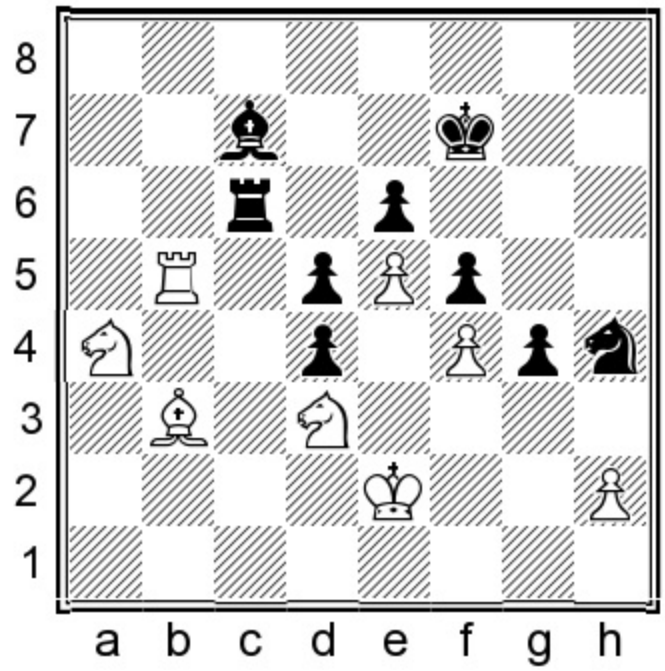
a) The point of Black's last two moves is that 5.axb5 ♖a2 6.♕b3 ♖a3 7.♕b2 ♖a2= forces a repetition.

b) Instead 5.g4! keeps a large advantage, as it is not easy for Black to untangle.

4.♕xb5 ♕xb5 5.♖xb5

Charlie went on to convert his extra piece in style.

5...♗c7 6.♗b3 ♖a1† 7.♖g1 ♖xg1† 8.♔xg1 ♖c3 9.♘c5 ♔f7 10.♘fd3 g5 11.♔f2 g4 12.♔e2 h5 13.♘a4 ♖c6 14.♘dc5 h4 15.gxh4 ♘g6 16.♘d3 ♘xh4



17.♖xd5! ♘f3

17...exd5 18.♗xd5† ♖e6 19.♘ac5+–

18.♖c5 ♖xc5 19.♘axc5 ♘xh2 20.♘xe6 ♗b6 21.♘g5†

1–0

Scoring for Puzzle 34

Best move	Score	Evaluation
1...g5	**10**	**–2.4**
1...♘e4	5	–1.2
1...♖he8	3	–0.6
1...♖hg8	3	–0.6

Bonus points for correct evaluation

Between –0.9 and –1.39	1 point
Lower than –1.4	**3 points**
Any other evaluation gets	0 points

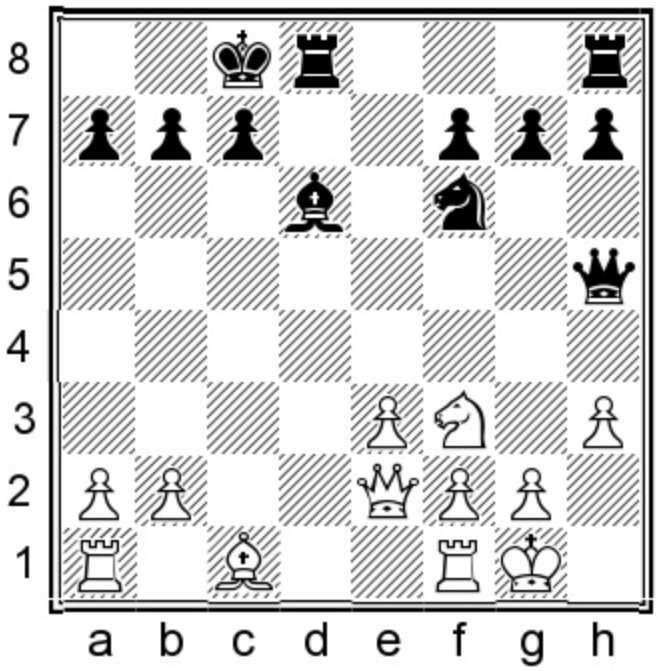
Puzzle Commentary by Phil

This impressive move allowed FM Charles Storey to win the Durham Open and become champion of the eight northern counties of the UK, and also to qualify for the British Championship. I saw the move in one of his courses at chessclub.com. I paused the video and tried solving the puzzle myself and failed, and realized that these kinds of retreating bishop moves are really hard to find. I tested the position with various players from the 1st Division of the Birmingham Chess League, as well as one International Master. None found it.

Adams Insight

The best move seemed to be tantalizingly out of reach for some. If 1.♗e2 was considered, as it often was, I would have thought moving the bishop just one square further with 1.♗d1 would also have been examined. Once seen, this seems clearly the superior option. Perhaps it was because it meets a threat by creating an attack on an opposing piece that the bishop retreat was so elusive? It's also a difficult position to assess correctly: even if you spot that move, White's position looks very clumsy, but it has a lot more going for it than it initially appears.

Puzzle 34



Black to play – Level 5

Show/Hide Solution

Puzzle 34 – The Bayonet Attack

Jonny (age 8)
unrated

00:20 White's bishop is stuck.
01:00 I definitely prefer Black.
01:30 Apart from my rook on h8, all Black's pieces are very active.
02:30 I would move my rook from h8 to e8.
03:30 My move would be 1...♖he8.

Evaluation: Black is better.

Alex O'Loghlen (age 12)
unrated

00:18 All my pieces are well developed.
00:40 There might be a possibility of checkmate.
01:30 My core pieces are my queen, bishop and knight.

03:20 Black's pieces are bunched around White's king.
04:50 I like 1...♘g4.
Actually, no. I didn't see that the knight on f3 is protecting h2.
09:00 I need to target that knight on f3.
12:00 I am now looking at 1...♘e4, with the idea of 2...♗g3, 3.fxg3 and 3...♘xg3 forking both queen and rook.
15:00 Scratch that. I am down to two moves: 1...♗e5 and 1...♘e4.
18:00 1...♘e4 is my final move.

Evaluation: Black is much better. (–2.0)

Tony Sadler
Elo 1893

00:50 All my pieces are out. I have a lead in development. Doesn't appear to be any sacrifices. My bishop is pretty good.
01:35 1...♘g4 is a move. Oh sorry, no – h2 is guarded. My first candidate move would be 1...♖he8.
02:20 Another candidate move is 1...♘e4.
02:30 White is underdeveloped.
03:30 Another candidate move could be 1...g5.
03:40 Yeah. I like the look of 1...g5.
If 1...g5 2.♘d4 I can still push 2...g4.
05:15 1...g5 followed by ...g4 and ...♖g8, and I reckon Black has a good attack.
06:30 My move would be **1...g5**.

Evaluation: –1.0

Philip Hurtado
Elo 1924

I feel I should attack the h2-square somehow to try and give mate. But there is no trivial way to do it.
1...♕e5 is not possible.
02:00 My rook on d8 is well placed, and so is my bishop on d6. I should definitely be better.
The question is: what to do? Maybe 1...♘e4 with the idea of ...♘g5.
1...♖he8 putting pressure on the queen and open file also looks good.
03:00 1...g5 also looks good, threatening ...g4 and opening White like a can of beans.
04:00 1...g5 looks really strong. The threat is ...g4 and ...♖g8. White should feel very uncomfortable with this.
05:00 So say I play 1...g5 2.e4, the2...g4 3.♘d4 ♕e5 wins.
05:45 1...g5 seems very difficult to defend against.

1...g5 2.♘d4 ♕e5 *(Phil didn't realize this is illegal)* 3.f4 (or 3.g3) 3...♕e4 seems pretty good for me.
07:00 And if 2.♕b5, I have 2...a6 first and then 3...g4.
I think White is losing here.
09:00 1...g5 is my final move.

Evaluation: –1.45

Michael Adams
Elo 2701

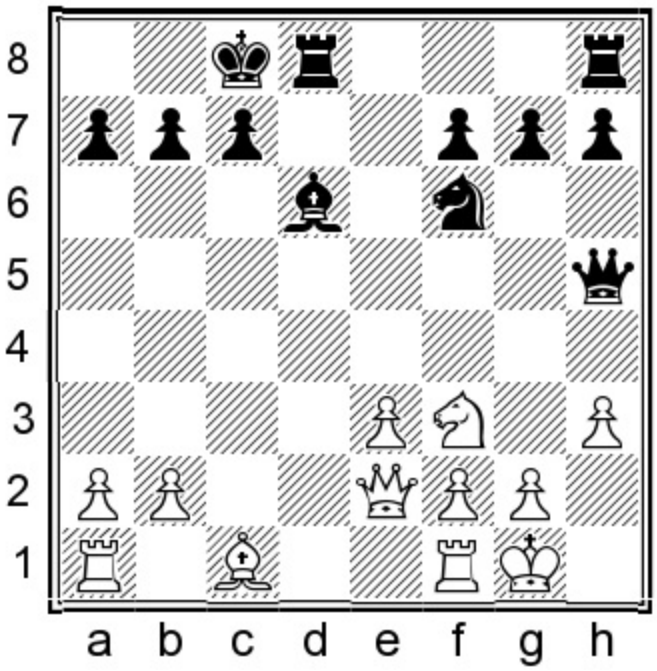
00:18 1...g5 looks interesting.
01:00 I guess White's idea is to play 2.e4, but that would lose a pawn immediately.
01:30 After 1...g5, it is not so clear what White's next move is.
1...g5 looks pretty strong. 2.e4 looks like the critical reply.
02:30 1...g5 2.e4 g4 looks pretty dangerous.
03:45 1...♘e4 also looks very good. But White could try 2.♘d4 to try and swap queens.
04:00 1...g5 2.e4 g4 3.hxg4 This is good for Black.
04:45 I go with **1...g5**.

Evaluation: Black is doing very well. (–2.0)

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



Here Black maximizes the benefits of his important lead in development and much more actively placed pieces, by using the hook of the pawn on h3 to breach White's structure and open lines, which will leave the white king in serious peril.

1...g5!

The g-pawn will act as a battering ram to open the g-file for Black's rooks and allow all Black's other pieces to aim towards h2.

There are a number of sensible developing moves that improve Black's position, such as 1...♖he8, but after 2.♗d2, the attacking plan of 2...g5 3.♕b5 is nowhere near as good now White is a little more developed.

1...♔b8 is a good move, but lacks urgency. This is a situation to seize the moment, and quickly begin an attack in the sector of the board where Black's pieces are congregated, before White can complete development.
1...♖hg8 would be good if White allows ...g5 followed by ...g4, but 2.♕c2! conveniently slows things down, as 2...g5 isn't a good idea due to 3.♕f5†.

1...♘e4 is the best alternative, as natural development with 2.♗d2? is not possible due to 2...♘xd2 3.♕xd2 ♗h2† 4.♔xh2 ♖xd2 5.♘xd2 ♕e5† and Black wins.

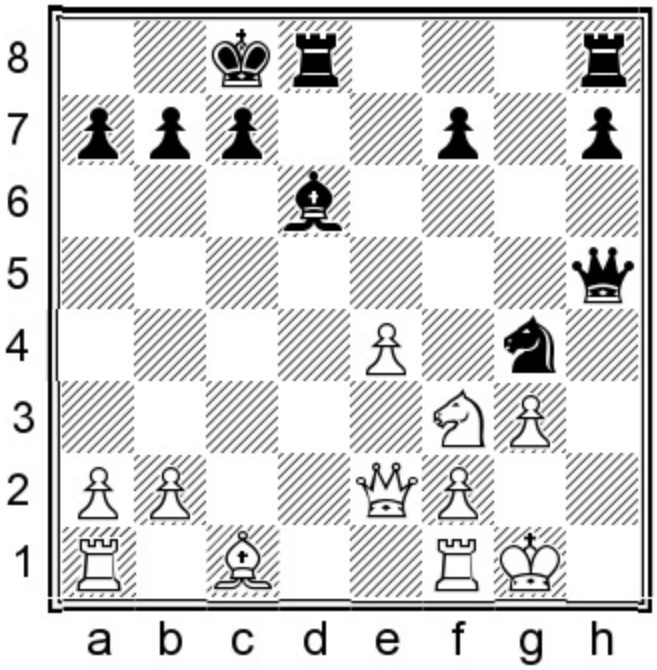
Instead, 2.♖e1! with the intention of 2...♗b4 3.♘d4 is no fun, but at least there are no direct targets in White's position.

2.♕b5!?

This is the most critical response to counter Black's automatic attack, and I did not consider it seriously enough.

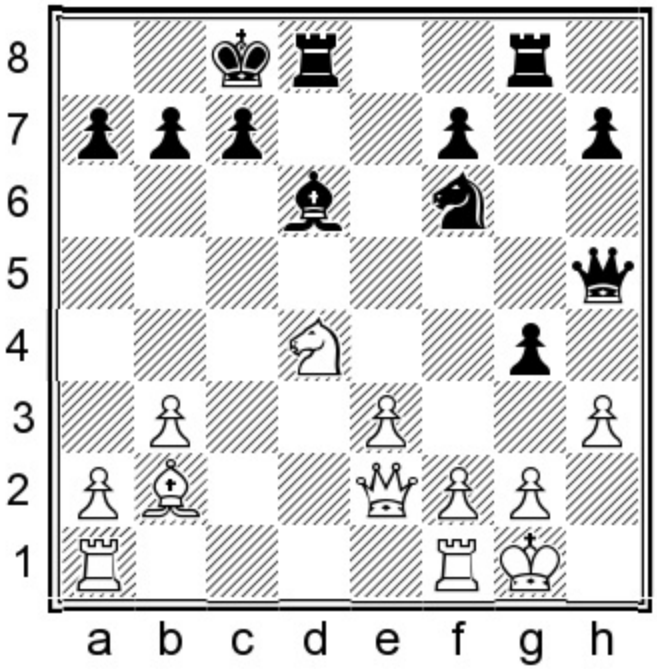
White's problem is that other moves are too slow to disrupt Black's plan, as the g-line will get opened, allowing a potent attack. For instance, 2.b3 and 2.♖d1 aren't urgent enough, and in both cases 2...g4 is great for Black.

2.e4 g4 3.hxg4 ♘xg4 4.g3

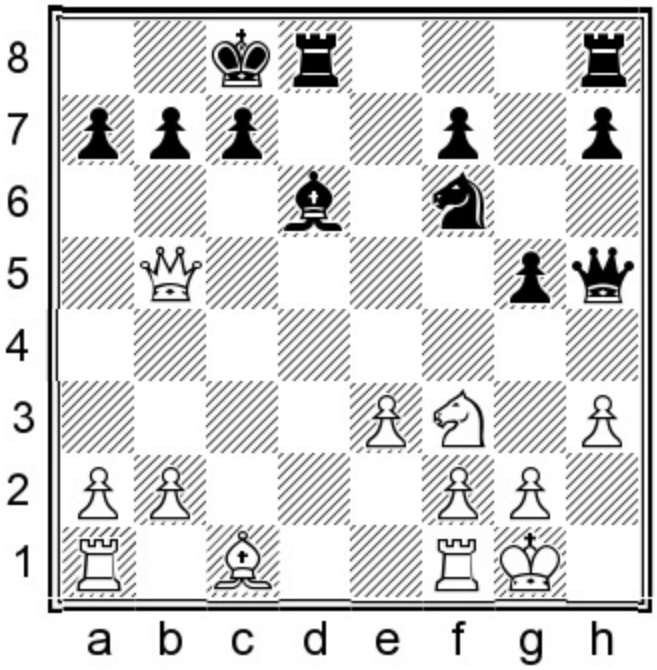


4...♘h2! Black wins the exchange.

Another nice line is: 2.♘d4 g4 3.b3 ♖hg8! Bringing another piece into the attack. (3...gxh3?! 4.♕xh5 ♘xh5 5.g3 allows White some relief.) The soon-to-be opened g-file will decide matters. A possible finish is: 4.♗b2



4...gxh3 5.♕xh5 ♖xg2† 6.♔h1 ♖h2† 7.♔g1 ♖g8† And mate next move.



2...c5!

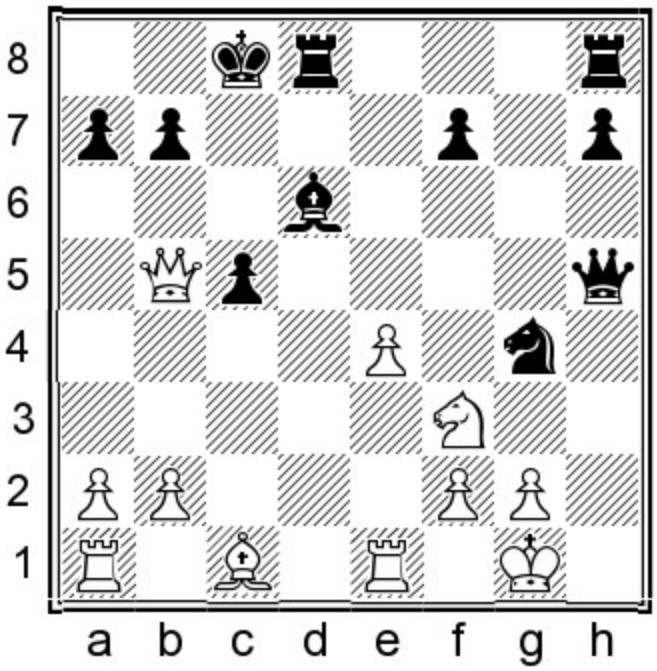
It is necessary to prevent the white queen from reaching f5 with check, which would seriously disrupt the attack.

2...♖hg8? 3.♕f5† ♘d7 4.b3 takes all the sting out of the initiative, as White's queen is now preventing progress on the kingside. Black has nothing better than 4...♕g6, but swapping queens was obviously not part of Black's plans.

3.b4

White gets some activity of his own, and forces Black to undertake some accurate calculation.

3.♖d1 g4 4.hxg4 ♗h2†! is crushing.
Another nice line is: 3.e4 g4 4.hxg4 ♘xg4 5.♖e1

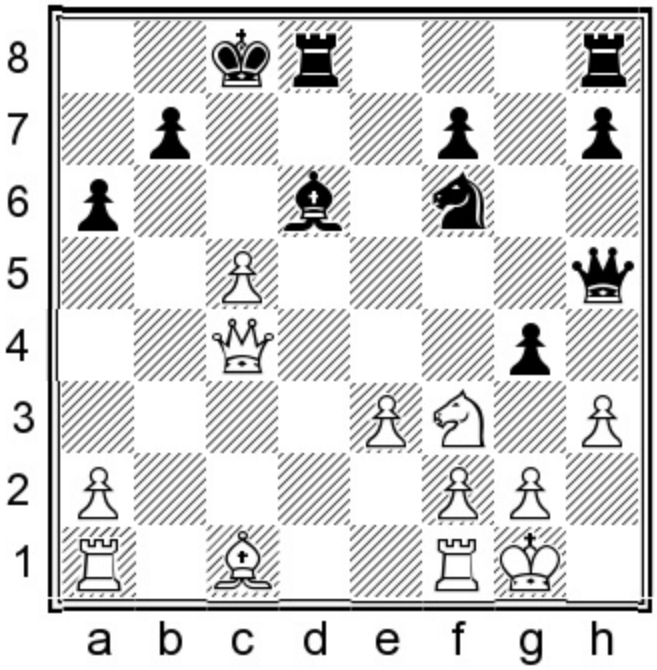


5...♘h2! 6.♘d2 ♖hg8 This shows how an attack can run like clockwork when you have an overwhelming advantage in number of attackers. 7.♕e2 ♖xg2† 8.♔xg2 ♖g8† 9.♔h1 ♘f3# is a possible finale.

3...g4!?

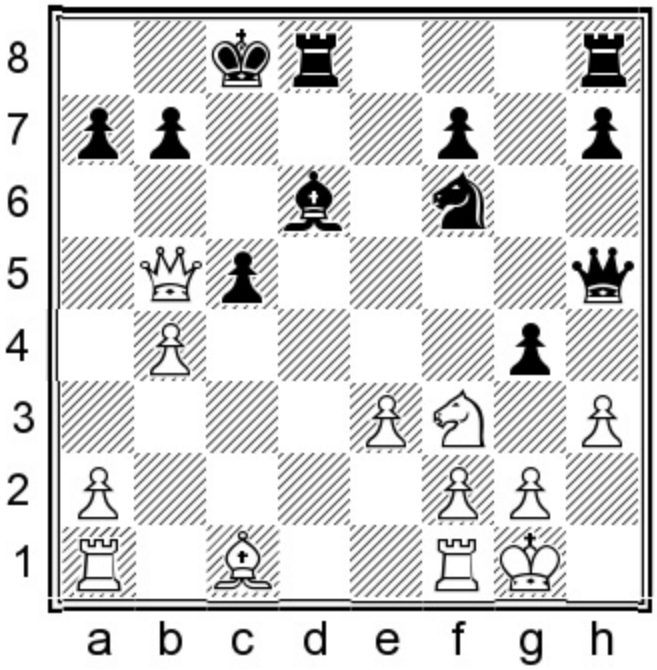
The most direct move works out, as Black is just in time.

The more circumspect 3...a6!? also succeeds, although 4.♕c4 g4 5.bxc5 forces Black to play precisely:



5...♗c7 6.c6 b5! is an unexpectedly effective way to secure the queenside while hitting the white

queen, which has no good posts available. This line would not be easy to calculate and rely on.



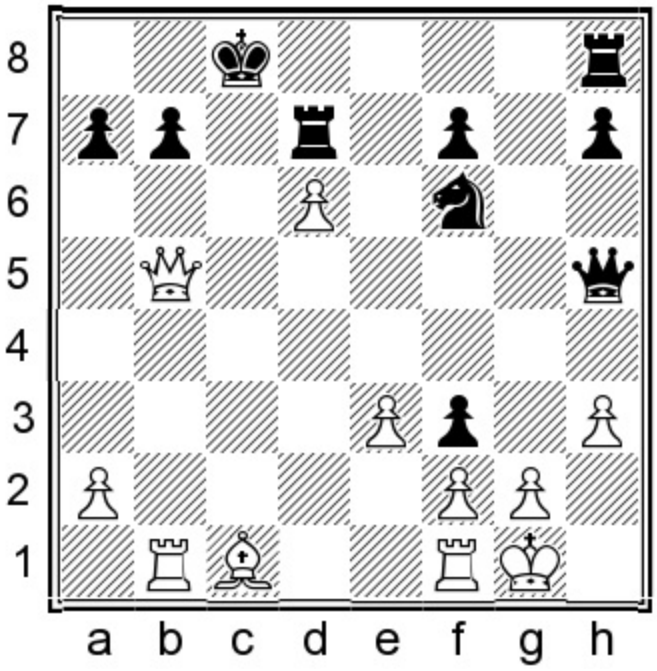
4.bxc5 gxf3 5.♖b1

Defending the queen and threatening mate.

5...♖d7 6.cxd6

6.c6 ♕xb5 wins, as White does not have time for 7.cxd7†? due to 7...♕xd7.

After the text move White seems to have survived, but it's an illusion.



6...fxg2!

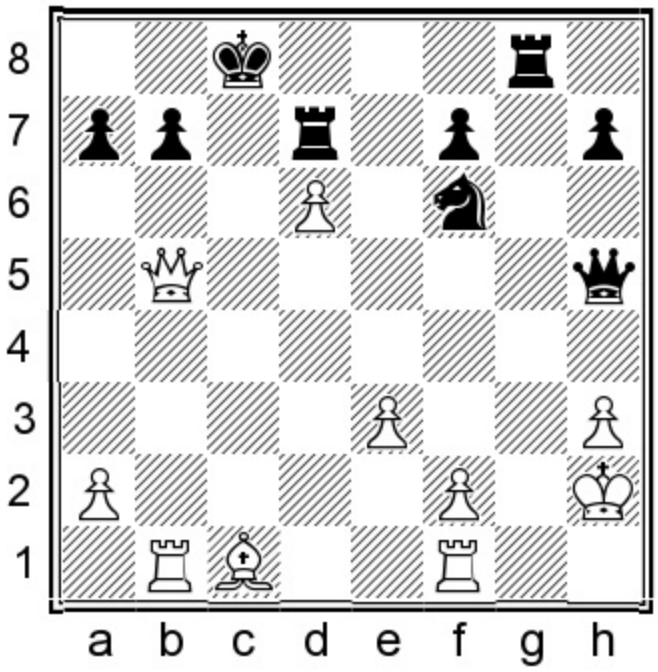
The only good move – but once the idea is seen, it's clear that it is totally crushing.

7.♔xg2

7.♖e1 ♕xh3 leads to a quick mate.

7.♕xh5 gxf1=♕†! a deadly intermezzo leaves Black a rook ahead. After 8.♔xf1 ♘xh5 9.♖b5, the easiest route to victory is 9...f5! 10.♖xf5 ♘g7–+ to get the knight out of trouble with gain of tempo.

7...♖g8† 8.♔h2



8...♘g4† 9.♔g3 ♘e5† 10.♔f4 ♕h4† 11.♔xe5 ♖g5†

White can resign.

Scoring for Puzzle 34

Best move	Score	Evaluation
1...g5	**10**	**–2.4**
1...♘e4	5	–1.2
1...♖he8	3	–0.6
1...♖hg8	3	–0.6

Bonus points for correct evaluation

Between –0.9 and –1.39	1 point
Lower than –1.4	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

Practically all players above Elo 1700 found the solution to this puzzle without difficulty. However, unrated players, or those who have not heard of the bayonet attack, will most probably fail to find the move.

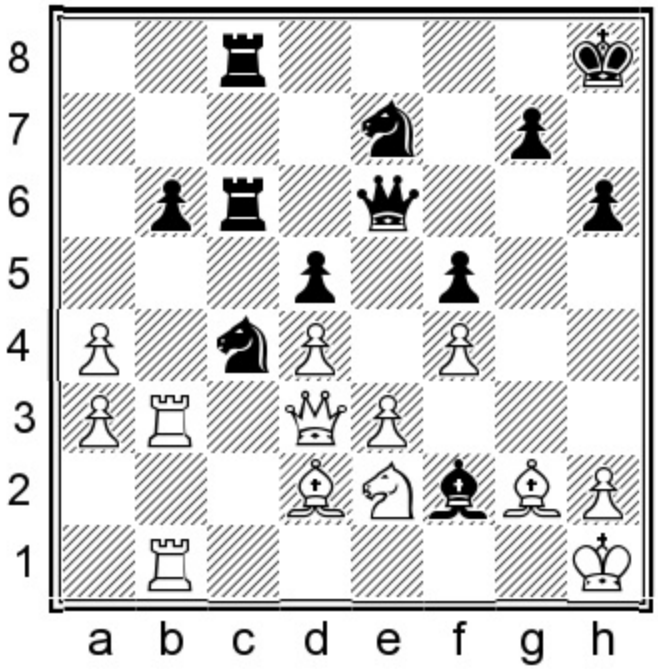
All players, regardless of their rating, are able to evaluate the position quite well and sense that Black has an advantage. In fact, the train of thoughts and move suggestions of twelve-year-old Alex are not much different to those of more experienced players 500 rating points above him. Novices, however, will not suspect that a pawn move can have such strength, basing their attacks primarily on piece play. More experienced players who have come across the bayonet attack will find the key move very quickly.

Adams Insight

A standard theme: Black maximizes his developmental advantages by looking to breach White's solid structure on the kingside and open lines for Black's pieces. This is the time to strike, as less urgent continuations will cost Black a considerable part of his advantage. Opening lines is the top priority: if the g-file becomes partially opened then Black can deploy his rooks effectively there.

Although this appears quite a simple position if you only look at the first move, it's easy to miss White's most combative response, 2.♕b5, as I did. This only becomes possible after 1...g5 interrupts the black queen's sight of the 5th rank. Then 2...c5 is a very important detail, closing the white queen out of the defence again, although there are still some additional variations to work out afterwards.

Puzzle 35



Black to play – Level 7

Show/Hide Solution

Puzzle 35 – The Odd One Out

Jorge Granell
Elo 1673

01:40 The e3-pawn looks vulnerable.
03:15 1...♕g6 with the idea of ...♖e6 and then taking on e3.
04:00 1...♕g6 is attractive, with the idea of 2...♗xe3 3.♗xe3 ♘xe3 threatening mate on g2.
06:00 I like this variation a lot. I see Black is winning material here.
1...♕g6

Evaluation: –1.0

Philip Hurtado
Elo 1924

00:05 First question is how the heck did a black bishop land on f2?
00:15 I am sure I can do something with the stranded bishop in the heart of White's position.
00:30 I have a lot of pressure against e3. White has an extra pawn, but it is doubled.
00:40 It feels Black is better here.
00:50 I have a few options here: one is to get my knight to e4 with the manoeuvre ...♘d6-e4, and the other is to increase the pressure on the weak e3-pawn.
01:00 Let's start analysing to see if I can take on e3.
01:50 It seems I can't.
02:10 I am trying to get my rooks down to c1 somehow and check the king. But that square is well guarded at the moment.
02:30 Positionally, 1...♘d6 followed by ...♘e4 seems the correct thing to do. White would then have to give up his best bishop playing ♗xe4.
03:20 Another option I am exploring is 1...♘xd2 2.♕xd2 ♖c2, gaining control of the second rank.
04:00 Let me look at some alternative moves before going back to 1...♘xd2.
04:30 For example, 1...g5 with the idea of taking on f4 and making ...♘xd2 much stronger because of the double attack on the knight on e2.
06:30 Also, my knight on e7 isn't doing much. So the plan of 1...g5 and 2...♘g6 looks like a great way to improve my position.
07:45 My candidate moves so far are 1...♘xd2 and 1...g5.
09:30 After 1...g5 White can play 2.♖f1, kicking my bishop away from the premises.
11:00 Although then I could play 2...♘xd2 3.♕xd2 ♖c2 4.♕d1 ♗xe3.
14:00 The key question here is if White has any counterplay to my plan of 1...g5 and 2...♘g6.
16:00 1...g5 seems to leave White with many options: ♗f3, moving his knight, etc. So maybe 1...♘xd2 is the best move after all.
16:50 I go for 1...♘xd2 intending 2.♕xd2 ♖c2.

1...♘xd2

Andrew McCumiskey
Elo 2017

Evaluation: –0.5

01:00 Fairly messy in the middle. Maybe the battle here is for the e3-pawn. Black has three pieces on it, and White also has three defending.
01:30 Black could play 1...♘xd2 and open a way in for his rooks.

02:15 The question is: what is he threatening? Let's look at a silly variation: 1...♘xd2 2.♕xd2 ♗xe3. No. There is nothing there.
03:30 What am I threatening? 1...♘xd2 2.♕xd2 ♖c2 and where does he go with his queen?
05:30 These are the typical positions I get in postal chess and struggle with. There are no clear-cut best candidate moves. 1...♘g6 with the idea of going to h4 is an option.
07:30 Let's go back to 1...♗xe3. No, that is no good.
08:30 You got me stuck on this one Phil.
The other option I see is moving my knight back to d6 to get it into e4. But he can play 2.♖xb6.
Let's say I play 1...♘d6 anyway and ignore 2.♖xb6.
09:30 1...♘d6 2.♖xb6 ♘e4 3.♗xe4 fxe4 Queen moves (say to b5) 4...♕g4. That looks good.
10:00 Once I get my knight to e4 I seem to be doing alright. I am beginning to like my position more and more.
10:30 Can he play ♘c3 in the meantime? No. He can't. I play 2...♘e4 anyway.
11:00 Okay Phil. I think I am going to go with **1...♘d6** with a slight advantage to Black.
11:05 1...♘d6 2.♖xb6 ♘e4

Evaluation: –0.4

Akshaya Kalaiyalahan
Elo 2149

01:00 I am mainly looking at 1...♘g6 and ...♘h4, trying to get an attack on the kingside.
04:00 Also looking at 1...♖g8 with the idea of 2...g5.
07:30 I rejected 1...♘g6 because of 2.♘c3. And also rejected ...g5 ideas, as I don't see a breakthrough and thought it would be creating weaknesses for myself.
09:30 I am looking at **1...♘g8** followed by ...♘f6 at the moment.
11:30 I think I am going for 1...♘g8 with the idea of playing it to f6.

1...♘g8

Evaluation: –0.50

Julio Granda
Elo 2630

00:30 White has an extra pawn, although doubled is not worth that much.
01:00 I can't see anything substantially tactical for Black. And the only objection to my position is the badly placed knight on e7.
01:30 After moves like 1...♘xd2 2.♕xd2 ♖c2 3.♕d3 Black has forced some changes and has nothing.
02:20 We need to look for a move that accentuates Black's advantage. The knight on e7 definitely

needs improving.
03:50 The position is complicated. If I play 1...♘g6, White has 2.♖f1.
05:00 I am looking at tactical threats stemming from the moves 1...♘g6 and ...♘h4, but they are all very slow. White gets to my d5-pawn before I can do anything, by playing 2.♖b5.
07:30 Maybe the best idea is to take the knight to e4, via g8 and f6. 1...♘g8 2.♖f1 ♗h4 and if White now tries 3.♗h3 I have simply 3...g6.
08:00 It's worth pointing out that, in general, the pawn current structure h6/g7/f5 is quite a good one for defensive purposes. And in general I would not like to move my pawn to g6. But in the above variation it works fine.
08:15 After 1...♘g8, White can reply in kind, moving his knight to g1 and f3. For example: 1...♘g8 2.♖f1 ♗h4 3.♘g1 ♘f6 4.♘f3 ♘e4 And the threat of ...♘xd2 is hard to parry.
I like **1...♘g8**.

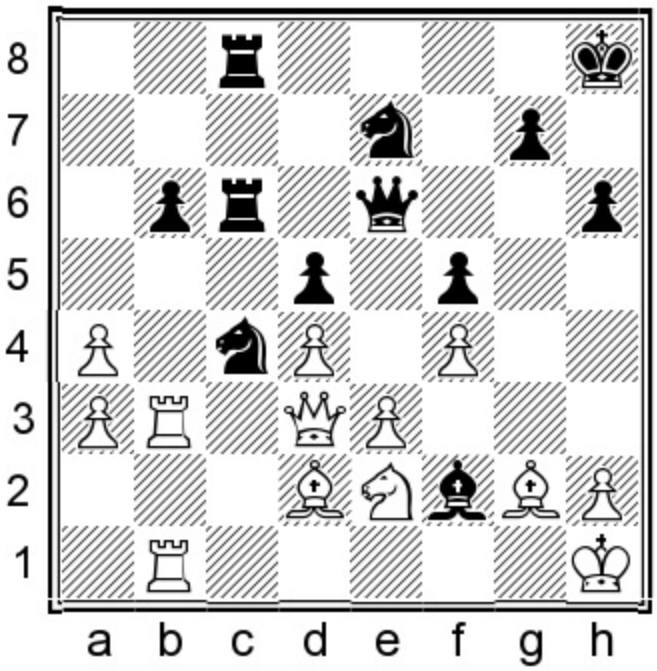
Evaluation: –0.70

Deeper Analysis by Michael Adams

Fabiano Caruana – Michael Adams

Baden-Baden 2013

1.d4 ♘f6 2.c4 e6 3.g3 d5 4.♘f3 ♗b4† 5.♗d2 ♗e7 6.♗g2 c6 7.♕c2 ♘bd7 8.0-0 b6 9.♖d1 0-0 10.♗f4 ♗b7 11.♘e5 ♘h5 12.♗d2 ♘hf6 13.cxd5 cxd5 14.♘c6 ♗xc6 15.♕xc6 ♖c8 16.♕b5 ♘e8 17.♕d3 ♘d6 18.b3 f5 19.f3 ♘b8 20.♘c3 ♘c6 21.e3 ♗f6 22.♘e2 ♕d7 23.♖ac1 ♖c7 24.♗e1 ♖fc8 25.g4 a5 26.a3 a4 27.bxa4 ♘c4 28.gxf5 exf5 29.♖b1 ♘e7 30.♗b4 ♔h8 31.f4 ♕e6 32.♗d2 ♗h4 33.♖b5 ♖c6 34.♖db1 h6 35.♔h1 ♗f2 36.♖5b3



Black has a good position, with well-placed pieces and a safer king. White is saddled with weak pawns on a4, a3 and e3, and the extra doubled pawn is not significant. The challenge is to improve Black's least active piece, the knight on e7, which is currently underemployed. Attending to this should be Black's top priority to ramp up the pressure.

36...♘g8!

This pleasing knight withdrawal is by far the most useful move. All my pieces are well placed with the exception of this knight, so I direct it towards e4, or occasionally g4. White's pieces are not active enough to target the pawn on d5, which will again be defended once the knight emerges on f6.

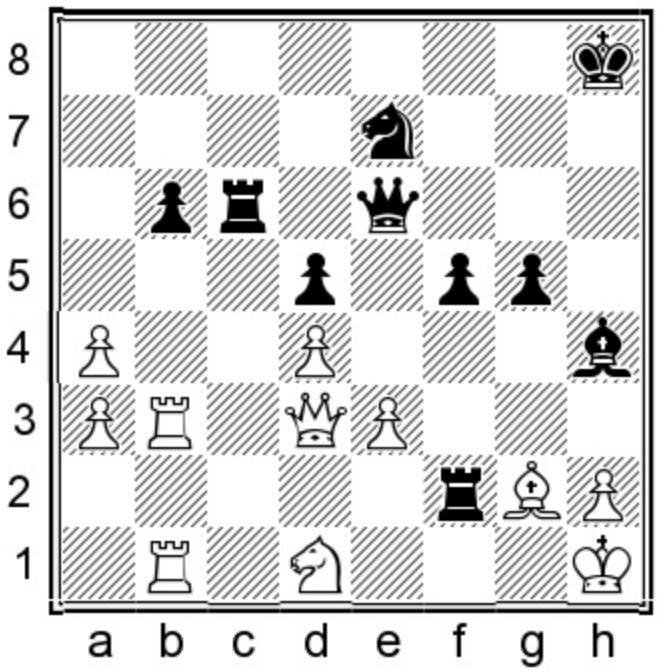
36...♕g6 doesn't really threaten anything. 37.♖f1 ♗h4 38.♗b4 ♖e6 39.♗d2 sees White consolidate, and the e7-knight is tied to the defence of d5.

The impatient 36...♘d6? 37.♖xb6 ♘e4 has the sound idea to land a knight on e4 but it is a big mistake to drop the b-pawn. 38.a5± Now White's additional a-pawn is much more relevant, and both are ready to advance. Black will be a long way behind on material unless he takes a pawn back with 38...♘xd2 39.♕xd2 ♗xe3, but now 40.♕d3 ♘g6 41.♖xc6 ♖xc6 42.♖b6 is strong.

The swap 36...♘xd2 37.♕xd2 opens up Black's rooks, but it is a shame to exchange the powerful knight on c4 for the bishop which it was dominating. 37...♖c2? (37...♘g8!∓) 38.♕d3 isn't a good idea, as now b6 is hanging. 38...♖2c6 is necessary. (38...♖8c6? 39.♘c3+–) 39.♖f1 ♗h4 40.♘g1 and White has solved a lot of problems.

36...♘g6 is also not a bad option, with the idea to play ...♘h4. This has the drawback of leaving d5 weak though. 37.♖f1! crosses Black's plan. 37...♗h4 38.♖fb1 This leaves Black with a problem, as I don't want to retreat my bishop, and otherwise ♘h4 is not possible.

36...g5 is interesting, but weakens my king. A logical continuation would be: 37.fxg5 hxg5 38.♖f1 ♘xd2! (38...♗h4 39.♗b4±) 39.♕xd2 ♖c2 40.♕d3 ♗h4 41.♘c3 ♖f2 42.♖fb1 ♖c6 43.♘d1

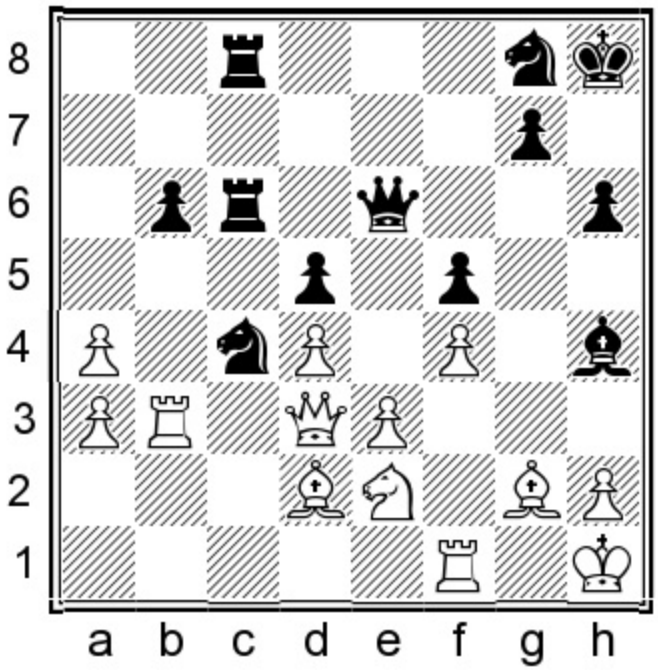


43...♖a2 44.♘c3 ♖f2 With a repetition.

37.♖f1

The 'active' 37.♖b5? ♘f6 is disastrous for White.

37...♗h4

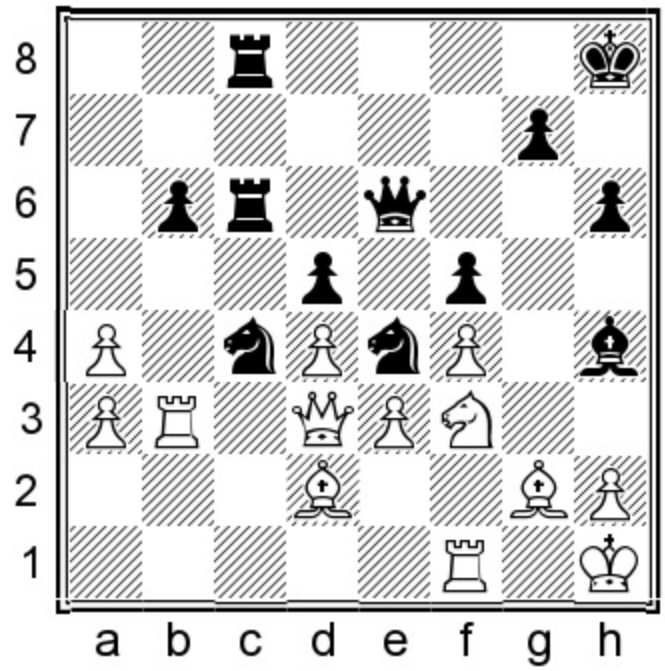


38.♗e1

Swapping the passive bishop is logical, but it has the drawback that the e3-pawn becomes more

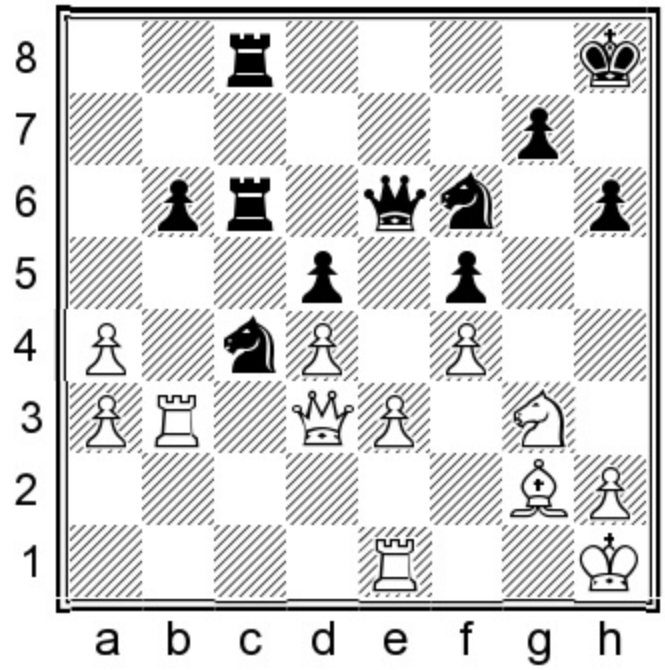
vulnerable.

38.♘g1 replicates Black's plan by sending White's knight towards e5, but this has a tactical flaw: 38...♘f6 39.♘f3 ♘e4!



As analysed by Julio. The tactics are very much in Black's favour, with the knight hungrily looking at the bishop on d2.

38...♗xe1 39.♖xe1 ♘f6 40.♘g3



40...♘e4

A premature advance on the last move of the time control, allowing an exchange on e4 which will

cover the weakness on e3.

The less committal 40...♘d6! was better, when White's weak pawns and passive bishop give Black a pleasant edge. Black can choose later which knight he moves to e4. Here are a couple of sample lines:

a) 41.♖eb1? looks natural but is well met by: 41...♘de4 42.♘xe4 ♖c1† 43.♗f1 dxe4 44.♕b5 (44.♕d2? ♖xf1† 45.♖xf1 ♕xb3 wins a piece) 44...♘d5 With threats including ...♘c3 and ...♖8c2, Black is already winning.

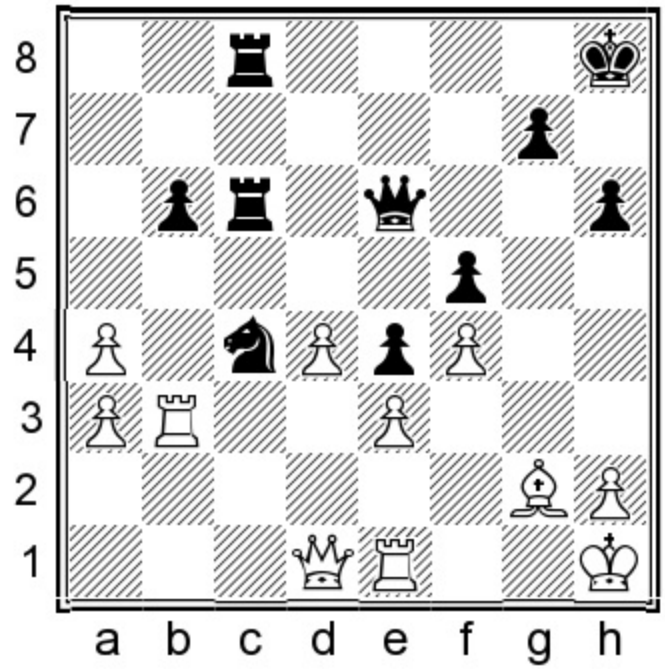
b) 41.♕b1 is more resilient, but 41...♘de4 42.♘xe4 dxe4 leaves my knight ready to land on d5, with a clear advantage to Black.

41.♘xe4 dxe4

A tricky choice, as 41...fxe4 42.♕e2 ♕f5 was also not bad, with ideas of ...♖g6.

42.♕d1

42.♕e2? ♘d2! 43.♖b2 ♖c2 sees Black infiltrate.



42...♕f7!

A handy waiting move. White's shaky structure and weak king mean he is permanently living on the edge, and the practical difficulties proved too much for Caruana.

43.♖g1

43.♖c3! looks better, although 43...♘b2! 44.♕b3 ♔g8! 45.♕xf7† ♔xf7 leads to a better endgame for Black.

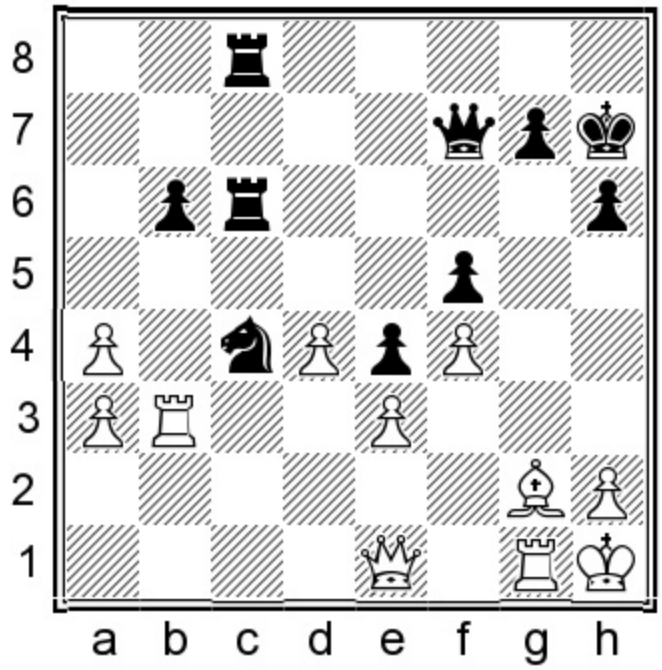
43...♔h7

43...♖8c7! was more accurate, preventing 44.♖c3? due to 44...♘b2.

44.♕e1?

A blunder, missing a knight jump.

44.♖c3! was necessary.



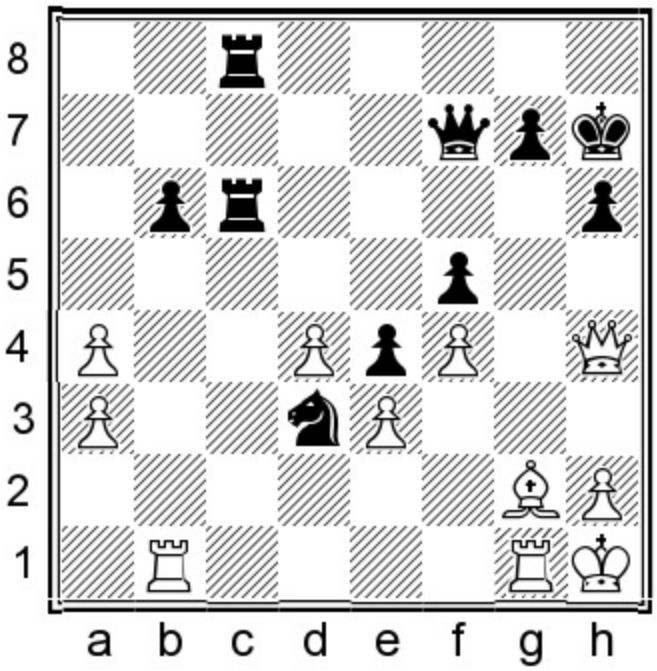
44...♘e5! 45.♕b1

White can't allow the knight to land on d3. For instance, 45.♖b5 ♘d3 46.♕g3 ♖g6 47.♕h4 ♕f6–+ and if 48.♕xf6 ♘f2 is mate!

Another possible winning line is:
45.♖b1 ♘d3 46.♕h4

46.♕e2 ♖c2 is crushing.

46.♕f1 ♖c2 47.h3 ♘f2† also leads to a mating attack: 48.♔h2 ♘xh3 49.♔xh3 ♕h5† 50.♔g3 ♕g4† 51.♔h2 ♕h4#

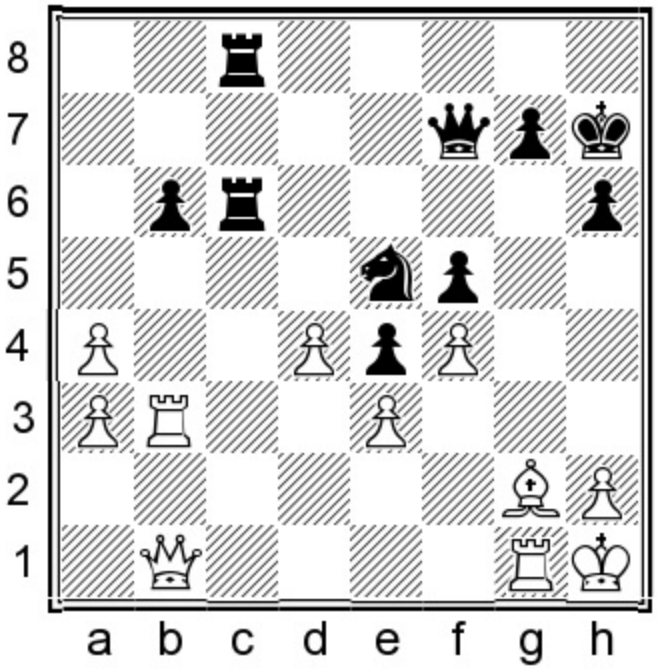


46...♕e7! 47.♕g3

47.♕xe7 ♘f2 is mate.

47...♖g6 48.♕xg6† ♔xg6 49.♗xe4† ♔f7 50.♗xd3 g6–+

For the moment White has approximate material equality for the queen, but White's exposed king and numerous pawn weaknesses render his position hopeless.



45...♘g4!

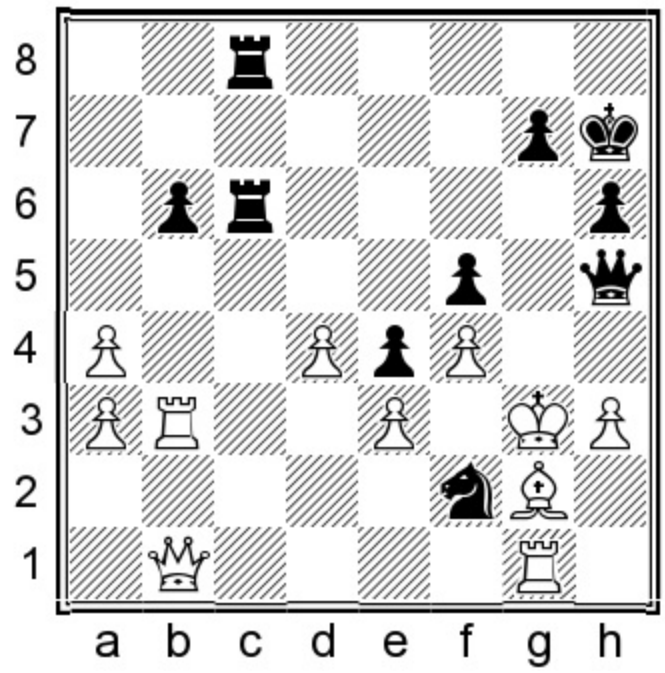
Avoiding 45...♘d3? 46.♖xd3 exd3 47.♗xc6 ♖xc6 48.♕xd3 ♕d5† 49.e4 fxe4 50.♕b5 when White survives.

46.h3 ♘f2† 47.♔h2 ♕h5–+

Suddenly White's king is in dire straits.

48.♔g3

48.♖xb6 ♘g4† soon wins, for instance: 49.♔h1 (49.♔g3 ♖c3 50.hxg4 ♕xg4† 51.♔h2 ♕h4† 52.♗h3 ♖xe3 53.♖xg7† ♔h8 54.♕f1 ♖c2†–+) 49...♖xb6 50.♕xb6 ♖c2 51.a5 ♕xh3† 52.♗xh3 ♖h2#



48...♘xh3 49.♗xh3 ♖g6† 50.♔h2 ♖xg1 51.♔xg1

51.♕xg1 ♖c2† wins the queen.

51...♕xh3 52.d5 ♖d8 53.♕f1 ♕g4† 54.♔h2 ♖xd5

0–1

Scoring for Puzzle 35

Best move	Score	Evaluation
1...♘g8	**10**	**–1.4**
1...♔h7	7	–1
1...♖8c7	5	–0.7
1...♖6c7	5	–0.7
1...♘xd2	3	–0.4
1...♘g6	3	–0.4
1...♕g6	1	0
1...Others	1	

Bonus points for correct evaluation

Between –0.3 and –0.59	1 point
Between –0.6 and –0.89	2 points
Between –0.9 and –2.49	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

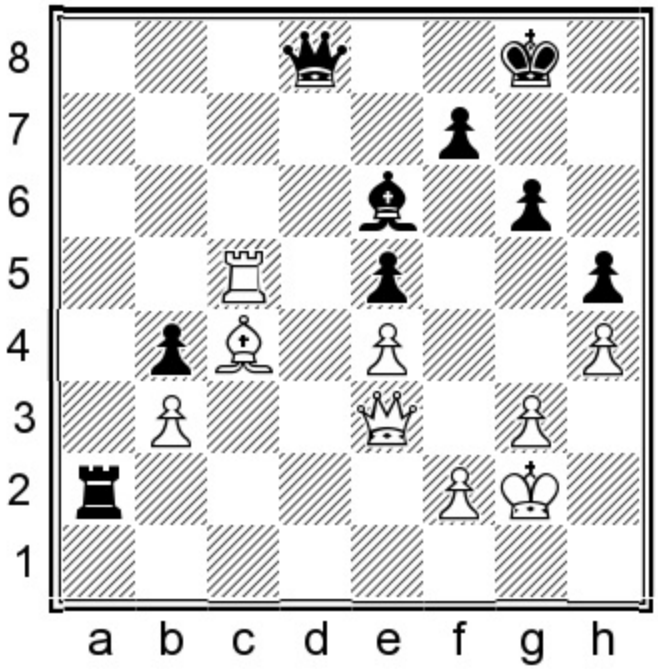
The funny thing about this puzzle is that not only do most players get it wrong, including myself, but that the move many people choose as best is not even amongst the computer's top five choices. These are the type of puzzles I struggle with enormously. Even after seventeen minutes of deep thought, I did not even come close to finding the correct move. You have to have a great understanding of chess to consider the move Mickey played in the game.

It's interesting to follow the thought process of Akshaya Kalaiyalahan, one of the few players below 2200 who found the right solution after reflecting on the position for nine minutes. When I showed this position to GM Julio Granda I knew of course he would find the best move, but I was startled when, after just one minute's thought, he identified the knight on e7 as the odd piece out.

Adams Insight

Most of Black's army is well placed. With no immediate action to worry about, due to White's fairly passive pieces, this is the time to improve your worst-placed piece, creating lots of new horizons for the knight. It's also reasonable to consider the alternative route 1...♘g6, aiming to land on h4. However, although the direction taken in the game is slower, it has the advantage that on f6 the knight will secure the pawn on d5, en route to an ideal central square on e4. There may also be circumstances where ...♘g4 can be a handy option, adding to the pressure on e3. Moreover, it's important that Black can choose the right moment for the knight to move forward to e4 or g4. In the game you can see how this played out, and how many positive options this manoeuvre created in the following moves, with all my other pieces already gainfully employed.

Puzzle 36



Black to play – Level 6

Show/Hide Solution

Puzzle 36 – Can You Beat the World Champion?

Penny Wood
Elo 1443

00:15 Oh Dear! 1...♕b6.
00:20 No. That is horrible because you lose the queen, don't you? To rook check.
00:30 Swapping bishops doesn't really help.
00:55 I don't like the queen coming to h6. So 1...♔g7 could be a move.

01:15 If I check with the bishop, 1...♗h3† 2.♔xh3 ♕d7†?
01:40 No, that is rubbish.
02:00 I don't think it's going to be a queen move.
02:30 I am veering towards the 1...♔g7 move. But it feels a bit feeble.
03:15 1...♗xc4 That doesn't do any good, does it?
04:00 I'm thinking about 1...♗xc4 and the resulting position if White takes back with the pawn.
04:45 1...♗xc4 2.♖xc4 ♖a3.
06:00 Oh dear, I am flummoxed on this one. 1...♕d4 threatens the rook, which prevents 2.♕h6.
06:30 1...♕d4 2.♕xd4 would give me a passed pawn. I think I'll do that, actually.
07:30 I'll play 1...♕d4, and then swap the bishop, and get something going.
Final move: **1...♕d4**

Evaluation: I think I have some chances. (–0.5)

Philip Hurtado
Elo 1924

00:10 I can take the bishop on c4.
00:24 I am wondering if I can start a matting attack with ...♖a1, ...♕d1 and ...♕h1†.
00:35 The idea of an attack via the back rank is very tempting.
00:48 I could do this immediately or after exchanging the bishops first.
01:08 I am also looking at possible entry points via h3.
01:20 If I don't act fast, White will play ♗xe6 and ruin my pawn structure.
01:57 So now I am looking with more detail into 1...♖a1 2.♗xe6 ♕d1, threatening mate.
02:59 White seems to have some defences which I have to analyse one by one: 3.g4 and 3.f3.
03:20 He also may have a "desperado" check like 3.♗xf7†.
03:30 I'll follow Julio Granda's rule of checking lines with check first: 3.♗xf7† I could actually ignore the check and move my king out of the way to g7. Then there are no more checks and I am still threatening mate.
04:12 3.f3 doesn't work because of 3...♕f1† 4.♔h2 ♕h1 mate.
04:37 And if 3.g4, I have 3...♕h1† 4.♔g3 ♖g1† mate.
05:10 Now I'll check if the lines are correct and see if White has something else. I am feeling the syndrome the weak players have, when you want your lines to work, and you don't try hard enough to see the opponent's resources.
05:48 Oh dear! I've just seen a new reply for White that may thwart my plans: 1...♖a1 2.♕h6!? and I can't move my queen to d1 as it is he who delivers mate first.
06:05 Hmm. 1...♖a1 2.♕h6 is a problem for me.
06:22 Oh! Silly me! The c8-square is guarded by my bishop.
06:32 However, after 2...♕d1 he can still play 3.♖c8† ♗xc8 4.♕xg6†!.
06:47 I have to be careful with that. Yes, that is dangerous for Black. So 1...♖a1 2.♕h6 is a real problem.

09:42 I am thinking of starting with 1...♕d1 first. This way I prevent 2.♕h6, as I have 2...♗h3†!.
09:53 Yes, that wins.
10:48 Let me recheck the lines again. Yes, 1...♕d1 and the threat of ...♖a1 is so strong that he might need to give up his queen to stop it, e.g. 2.♕d3, but 2...♗h3† wins I think.
11:28 1...♕d1 2.♕d3 ♗h3†! 3.♔f3 *(Phil didn't notice this was an illegal move due to the queen on d1)* 3...♕h1† 4.♔e3 and now there should be a strong move for Black that I have to find.
12:25 Yes, I am sure this position (after 4.♔e3) is winning for Black. I can continue the attack with, say, 4...♕e1† or 4...♕g1, whereas White's attack has been defused. After any of White's checks I can go ...♔g7 and I am pretty safe.
13:05 After 1...♕d1 even if he tries 2.♗f1, the move 2...♗h3† is so strong that I should gain an advantage anyhow.
13:40 Yes, I play 1...♕d1 and the threat of ...♗h3†! is devastating.

1...♕d1

Evaluation: >–5.0

Renier Vazquez
Elo 2551

00:20 My first impression is that the game is completely equal.
00:30 The only thing I see is that Black has a more active rook on the 7th rank.
00:45 White has the e5-pawn under attack.
01:00 White's king is a bit stuck in the corner. Maybe it could be subject to some attack.
01:45 The first move I am looking at is 1...♕d4, compelling White to exchange queens and allowing me to have a passed pawn.
02:00 I am going to calculate now. I don't see at the minute any weaknesses in White's camp.
02:30 My main concern is making sure White does not immediately exchange bishops, ruining my pawn structure.
03:00 I have just spotted 1...♕d1 with the idea of 2...♖a1.
I am going to calculate 1...♕d1.
(Thinks in silence.)
It's funny how one single move changes the whole appreciation of a game. At first I thought White was okay. Now they might be lost.
05:15 1...♕d1 2.♕f3 ♗h3†! White seems to be entering into a mating net.
06:00 1...♕d1 2.♗xe6 ♖a1 and the mate on h1 is unstoppable. Let me calculate. This might be lost for White.
09:00 I've made a decision: I will play 1...♕d1. I can't see how White can defend against mate without losing massive material.

1...♕d1

Evaluation: Black wins.

Deeper Analysis by Michael Adams

Viswanathan Anand – Michael Adams

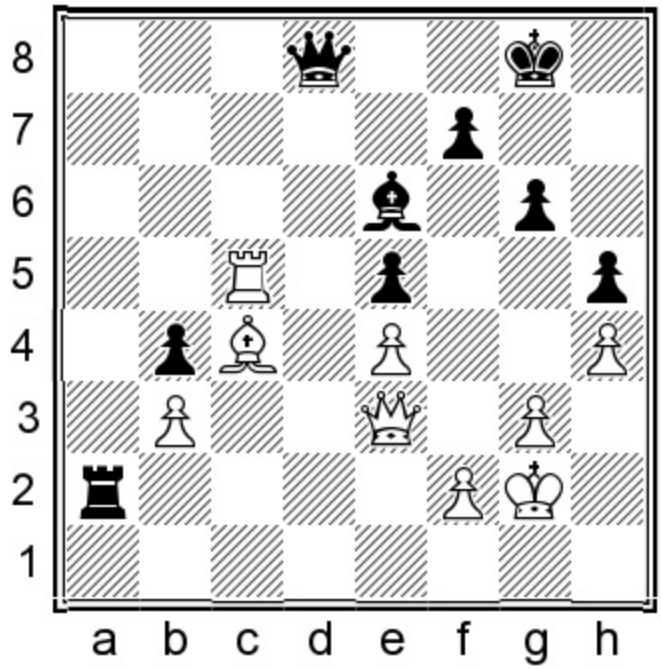
London 2012

1.c4 e5 2.♘c3 ♘f6 3.♘f3 ♘c6 4.g3 g6 5.d4 exd4 6.♘xd4 ♗g7 7.♗g2 0-0 8.0-0 ♖e8 9.♘c2 d6 10.♗d2 a6 11.♖c1 ♘e5 12.b3 c6 13.♗e3 ♘fg4 14.♗d4 c5 15.♗xe5 ♗xe5 16.♘d5 ♖b8 17.h3 ♘f6 18.♘ce3 ♘xd5 19.♘xd5 ♕a5 20.♖c2 ♗f5 21.♕d2 ♕d8 22.♖cc1 b5 23.cxb5 axb5 24.♖fd1 h5 25.h4 ♗g4 26.♘e3 ♗d7 27.♗f3 ♗d4 28.♘d5 b4 29.♖c4 ♗e5 30.♔g2 ♖a8 31.♘e3 ♖a7 32.♖cc1 ♕e7 33.♘c4 ♗e6 34.♖c2 ♗f5 35.e4 ♗e6 36.♘xe5 dxe5 37.♕e3 ♖a5 38.♗e2 ♖d8 39.♖xd8† ♕xd8 40.♖xc5 ♖xa2 41.♗c4?

From an equal position, White makes a careless move just after the time control.

41.♖xe5 ♕d2 42.♕xd2 ♖xd2 43.♗c4 ♗xc4 44.bxc4 ♖d4= is one way the position could head towards a draw.

White's last move has left the d1-square undefended, and once you see the idea of commencing a mating attack around the back with ...♕d1 and ...♖a1, it looks tempting. Then it is a question of calculating the relevant variations.



41...♕d1!

Fortunately this passing opportunity arrived just when my clock had been replenished. I realized

that this long move cleans up, after having plenty of time to check it.

41...♖a1? has the same idea but 42.♗d5! blocks the d-file. (42.♕h6!? is also possible, when 42...♕d1? transposes to 42...♖a1?? in the notes to the game continuation below.)

41...♗xc4? 42.♖xc4 ♕d1 is too slow, and White has a lot of good options including 43.♕h6 or 43.♖c1.

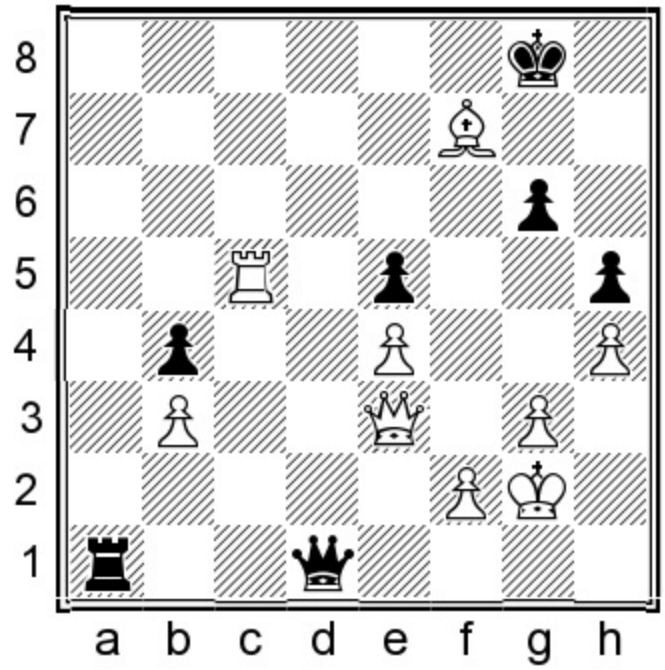
Even worse alternatives are 41...♕d4? 42.♕xd4 exd4 43.♗xe6 fxe6 44.♖c4± and 41...♕d2? 42.♕xd2 ♖xd2 43.♗xe6 fxe6 44.♖xe5, both of which leave Black in serious trouble.

42.♕h6!

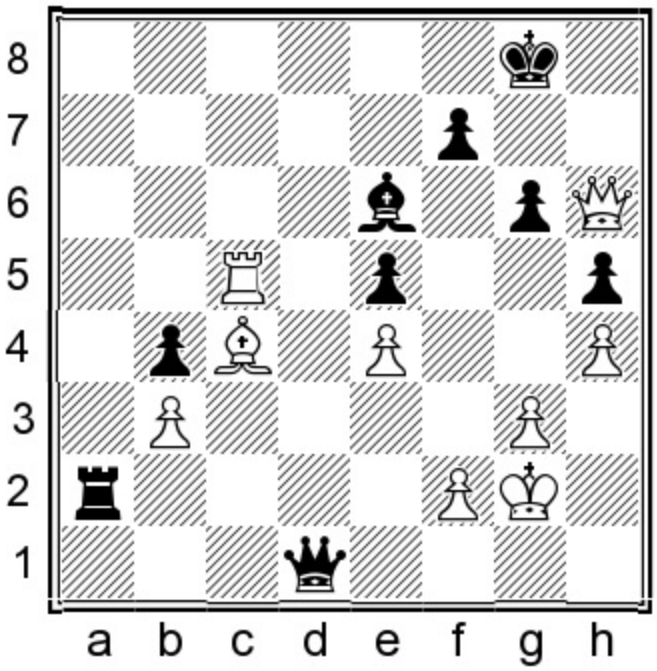
The most resourceful try, giving Black a last chance to unfavourably reverse the result.

42.♕d3 ♗h3† leads to a quick kill after 43.♔xh3 ♕h1# or 43.♔h2 ♖xf2† 44.♔xh3 ♕h1#.

42.♗xe6 ♖a1! 43.♗xf7† (43.f3 ♕f1† and mate; 43.♖c8† ♔g7–+) only requires Black to place his king on a secure dark square:



43...♔g7! White is left without a useful check or any good way to prevent ...♕h1 mate.

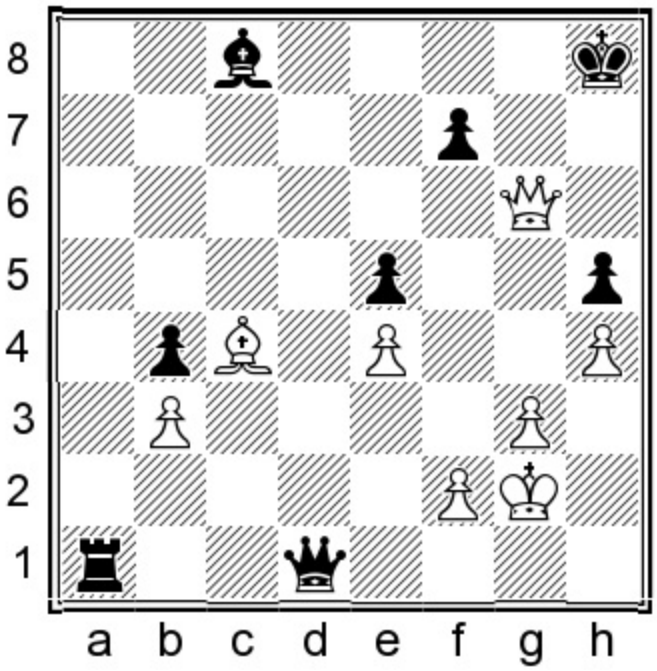


42...♗h3†!

There are a number of ways to go wrong, all of which fail to appreciate the power of the bishop on c4, pinning the pawn on f7. 42...♗g4?? 43.♕xg6† is a simple example.

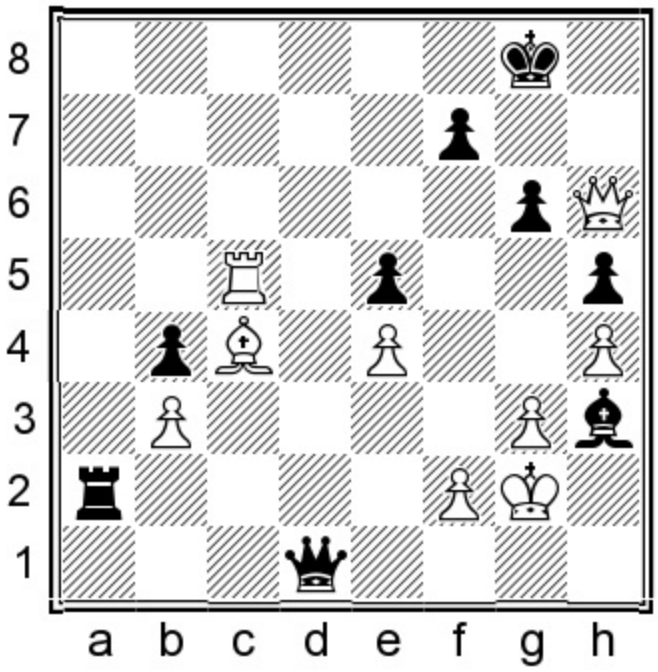
42...♕d4?? and 42...♕e1?? both allow 43.♖c8†! ♗xc8 44.♕xg6† when White delivers mate in the same manner as the line below.

42...♖a1?? is the most tempting alternative as it was the main threat created by Black's previous move, but it overlooks White's idea and allows 43.♖c8†! turning the tables: 43...♗xc8 44.♕xg6† ♔h8 It's obvious that White has an easy perpetual if he wants it, but there is actually a forced mate:



45.♕f6† ♔h7 46.♕xf7† ♔h6 47.♕f8† ♔h7 48.♗g8† ♔h8 49.♗f7† ♔h7 50.♕g8† ♔h6 51.♕g6#

However, 42...♕g4!? is an alternative winning line, as the queen reinforces g6 and hits e4, as well as threatening a check on h3. White has nothing better than 43.♗xe6, when 43...♕xe4† leaves nowhere for the king to hide: 44.♔g1 ♕e1† 45.♔g2 ♖xf2† 46.♔h3 ♕f1# Although this line works fine, the game continuation is a much more natural choice, as it wins more efficiently and with the practical benefit of a check, limiting White's options to just two legal moves, both of which lose trivially.



0–1

The final check means that Black's attack will definitely be a move quicker, and White resigned due to 43.♔xh3 ♕h1# or 43.♔h2 ♖xf2† and mate next move.

Scoring for Puzzle 36

Best move	Score	Evaluation
1...♕d1	**10**	**–6**
1...♗xc4	1	0
1...♖a1	1	+0.1
1...♕d4	1	+0.8
1...♕d7	1	+0.9
1...♕f6	1	+1

Bonus points for correct evaluation

Lower than –2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This position led to a rare win for a UK player against a reigning World Champion, at the London Chess Classic in 2012. Most players of 1900 Elo and stronger managed to launch the winning attack here.

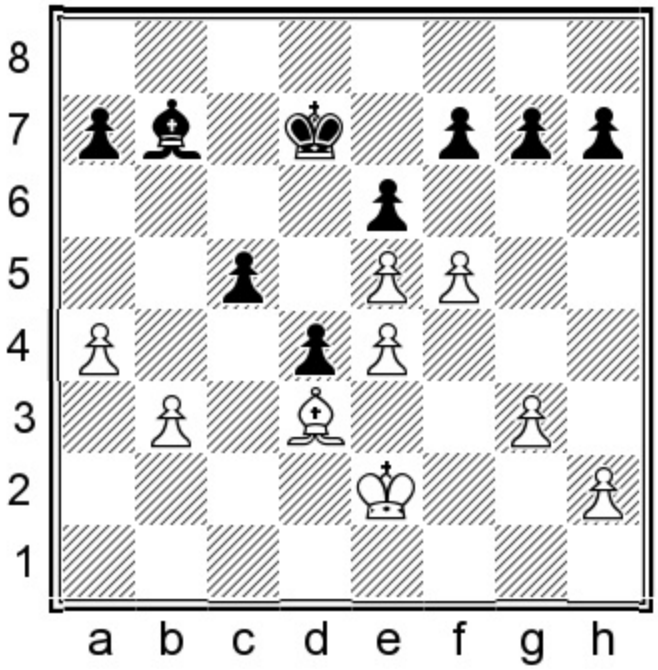
Adams Insight

After a bit of thought, most players saw how to exploit the undefended back rank here. It's another position where you have to consider all the candidate moves, to make sure you don't miss out on the big prize with the long queen move. It's also essential to spot the detail that 1...♖a1?, with the same idea, allows various ways to thwart the back-rank mating ideas.

Positions 37-40

Fighting to the Finale

Puzzle 37



Black to play – Level 7

Show/Hide Solution

Puzzle 37 – Clearing a Path

Louise Head
Elo 2090

00:30 I don't want to play 1...exf5.
01:00 Actually, I may consider it as a move, because it opens the scope of the black bishop.
02:00 On third thought, perhaps it's not so good, as after 1...exf5 2.exf5 my king moves are restricted.

I'll leave 1...exf5 on hold for the moment.
03:00 1...♔c7 with the idea of 2...♔b6 and 3...♗a6 would be good for Black, as it has a passed pawn.
04:00 My two candidate moves so far are 1...exf5 and 1...♔c7.
04:20 Another move I would consider for flexibility is 1...f6.
05:00 It seems, anyway, that Black is somewhat better, especially because of the passed pawn.
08:00 Let me check again 1...exf5 2.exf5 and I can't make progress with my king. 2...♗d5 3.♗c4 (maybe) and White seems to hold.
10:00 I'll look at 1...♔c7 2.a5 and that stops the black king from coming in.
18:00 I'll just check 1...f6 2.g4, or take on e6.
19:00 After 1...f6 2.exf6 gxf6 White can march his kingside pawns with h4 and g4.
21:40 1...f6 2.exf6 gxf6 3.♔f3 and Black might not be able to break through, even though Black is better.
23:30 With the king on f3, White can wait by moving their bishop.
If I had to choose a move in the game, I would play **1...♔c7**.

Evaluation: Black is winning

Keith Arkell
Elo 2429

The first impression is that Black is significantly better.
01:30 Do I try and gain some black squares for the king so he can move up the middle of the board by playing ...f6? Or should I take my king on tour to the queenside, with ...♔c7 and ...♔b6?
03:30 If 1...♔c7 2.a5! stops the king from getting nearer to the pawns. In fact, it creates a fortress. Getting the king to e5 is a potent and tempting plan.
04:00 This plan does a lot of good, and it'll be very difficult for White to defend that position.
04:35 If 1...♔c7? White has many options: 2.♗c4, 2.g4, 2.a5.
04:40 1...c4 is nonsense.
04:45 1...f6! feels pretty good. That's what I'll play.

1...f6

Evaluation: Black is probably winning. (–2.0)

Julio Granda
Elo 2630

My first impression is that Black is better due to his passed pawn and better pawn structure.
01:35 The more forcing variation here is 1...f6, with the idea of taking my king to the centre, to e5. In any ending, having an active king is a most important factor.
1...c4 could be a fantasy variation. But it doesn't get Black anywhere. 1...f6 looks much stronger.

03:15 In fact, in this position White has no clear plan. All he can play are waiting moves like a5, ♗b5† and ♔f3.
I am trying to look for something special for White here.
(Thinks in silence for a while.)
04:30 1...♔e7 is also interesting, with the same idea of 2...f6 and taking on f6 with the king. That also wins.
04:35 In fact, 1...♔e7 may be slightly better.
06:15 Yes. 1...♔e7 gives a decisive advantage.

1...♔e7

Michael Adams
Elo 2701

Evaluation: Black wins. (–4.5)

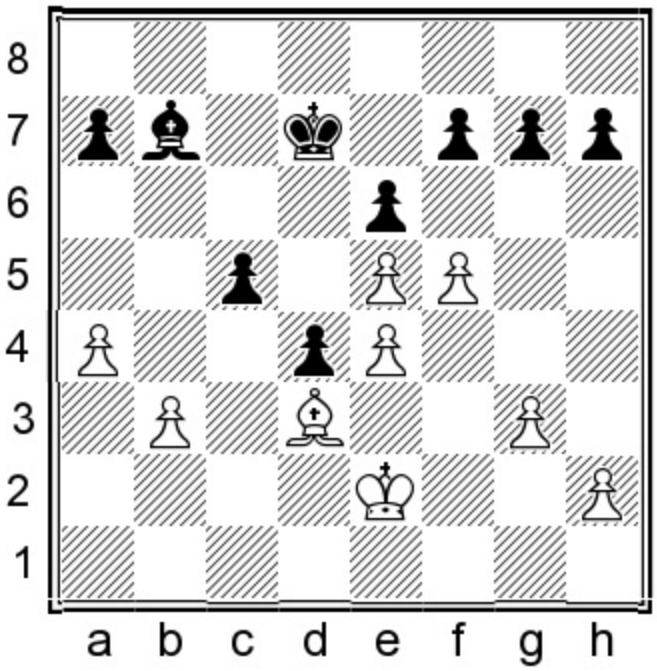
01:00 1...exf5 2.exf5 ♗d5 has to be checked, followed by 3.♗c4 ♗xc4, leading to an endgame that has to be investigated.
01:30 White looks like he is doing okay there.
01:35 1...f6, or 1...♔e7 with the idea of ...f6 the next move.
01:40 1...a5 may be an option.
02:05 Can White play f6 himself? No, he loses a pawn. So Black does not need to prevent that.
02:30 I'd certainly be interested in the plan of 1...♔e7 followed by ...f6.
03:00 It would be nice to play 1...a5 first, but White might be able to use that tempo with, say, 2.g4.
03:50 Maybe it doesn't matter that much if White gets a5 in himself.
05:00 1...♔e7 2.a5 White doesn't have that many useful moves. 2...f6 3.exf6 ♔xf6
06:30 And if 1...a5 2.g4 (likely, as 2.♔f3 loses a pawn) 2...♔e7 3.♔f3 f6 4.♔f4
06:45 So probably Black has to play 1...♔e7 first. Otherwise White activates his king.
07:30 *(Michael looks again at* 1...exf5 2.exf5 ♗d5 3.♗c4*, but rejects it in favour of 1...♔e7.)*
08:00 1...♔e7 is the best move, with the idea of playing ...f6 and getting the king to e5.
08:15 Unless White can counter this, White will get into zugzwang and his position will collapse.
1...♔e7

Evaluation: –1.7 (Although this may climb very quickly.)

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2018



White's last move was the serious error 1.f5?, fatally weakening White's dark-square control and clearing a path for the black king into the heart of the position. Urgent action is required to exploit Black's better structure and more influential bishop. If Black tarries, White can repair the damage caused by the mistaken pawn advance by reinforcing the dark squares.

1...f6!

The computer's favourite: Black swaps White's most influential pawn directly, with the aim of clearing a path for Black's king to head to a prime central location.

There are several other candidate moves, some of which allow the win to slip away, while others win in a slightly different manner.

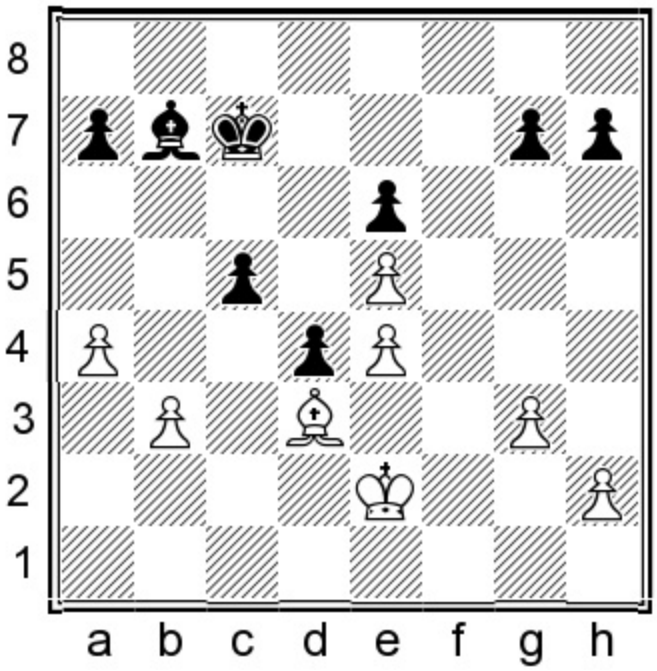
1...♔c7?

This allows a clever defence:

2.fxe6!

But not 2.♗c4? in view of 2...♗xe4 3.fxe6 f6! when Black soon rounds up the e6-pawn and wins. 2.a5 ♔d7! retraces Black's steps and recovers some winning chances. For instance, 3.g4 f6! 4.exf6 gxf6 5.♔f3 exf5! 6.gxf5 ♔d6 7.♔f4 ♗c6 8.♗c4 ♗e8 9.♗g8 h6 10.♗e6 ♗h5 and White is still in some danger.

2...fxe6



3.a5!

This clever defensive idea holds. Black's king has no entry route, and ♗c4 could keep him busy by hitting e6.

1...♔c6? was chosen by Phil in the game. This is simply a slightly worse version of the 1...♔c7 line above, as White can either draw with 2.fxe6 as shown there, or obtain counterplay with 2.♗c4, since the black king obstructs the attack on the e4-pawn. The remaining moves were played under mutual time shortage and White eventually won after mistakes on both sides.

1...a5?

This has the positionally sound idea of fixing the a4-pawn on a light square, but it misses the urgency of the situation and allows White to improve his king and take control of e5.

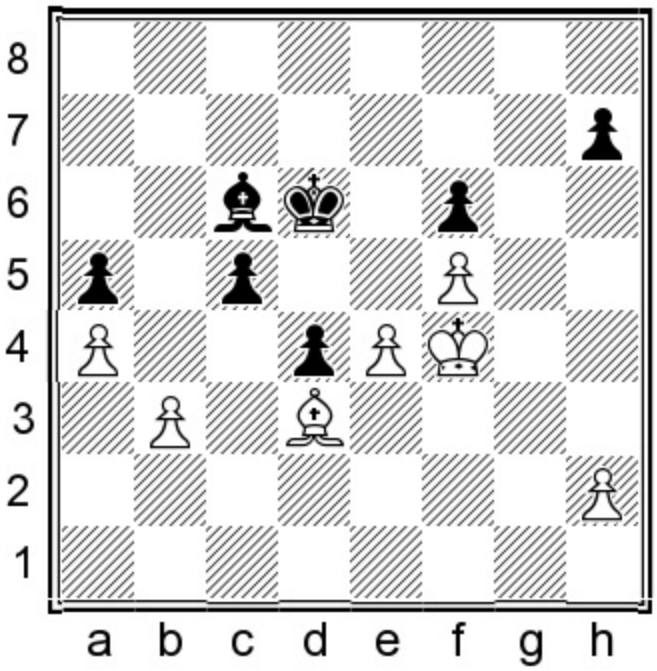
2.g4! f6

2...♔e7 and now either 3.g5 or 3.♔f3 are fine for White.

3.exf6 gxf6 4.♔f3 exf5

4...♔d6 5.♔f4 places White's king on an ideal square.

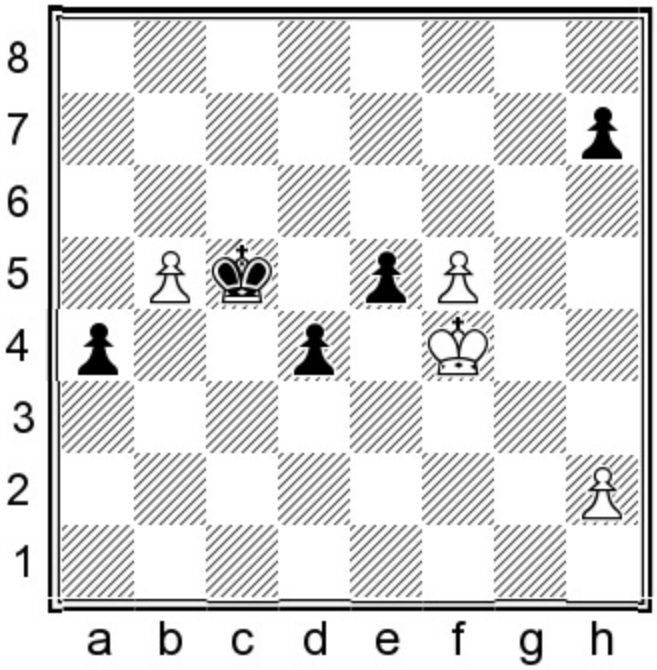
5.gxf5 ♔d6 6.♔f4 ♗c6



7.♗b5!?

7.♗c4 ♗e8 8.♗g8 h6 9.♗c4 ♗h5 10.♗e6 ♗e2 11.♗f7 should also hold, but the text move is the more convincing way of forcing the play.

7...♗xb5 8.axb5 c4 9.bxc4 a4 10.c5† ♔xc5 11.e5 fxe5†

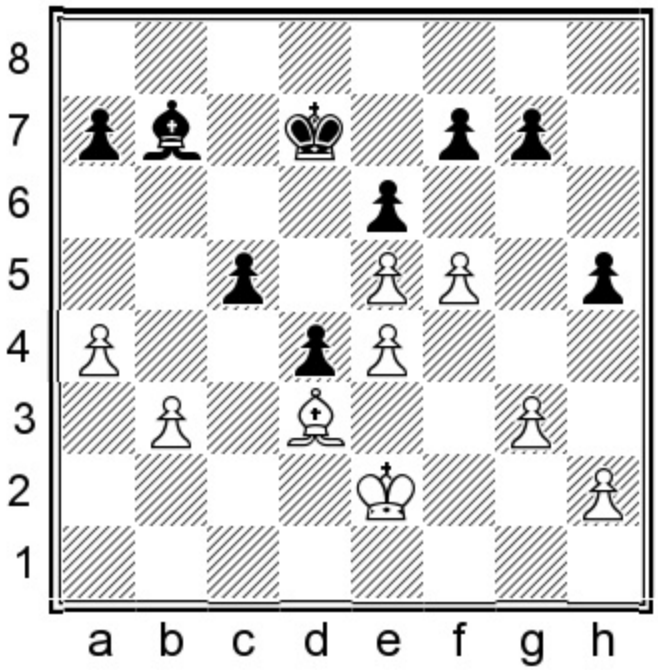


12.♔e4!=

Both sides will promote, leading to a queen ending where White can hold without much difficulty. 12.♔xe5? d3, on the other hand, leads to a tablebase draw after mutual promotions, but in a practical game Black would have serious winning chances due to the passed a-pawn.

1...h5!?

This prevents White from reinforcing the kingside with g3-g4 and ♔f3-f4, but it costs a tempo and fixes a pawn on a light square. Black does still seem to be able to win, but it will be necessary to come back to the key plan of a timely ...f7-f6 to take over the dark squares.



2.♗b5†

2.♔f3? exf5 remains a key point.

2.h3 ♔e7 3.g4 f6 4.exf6† ♔xf6 5.♔f3 exf5 6.gxf5 ♔e5 7.a5 h4 8.♗c2 ♗a6 9.♗b1 ♗f1 and Black wins.

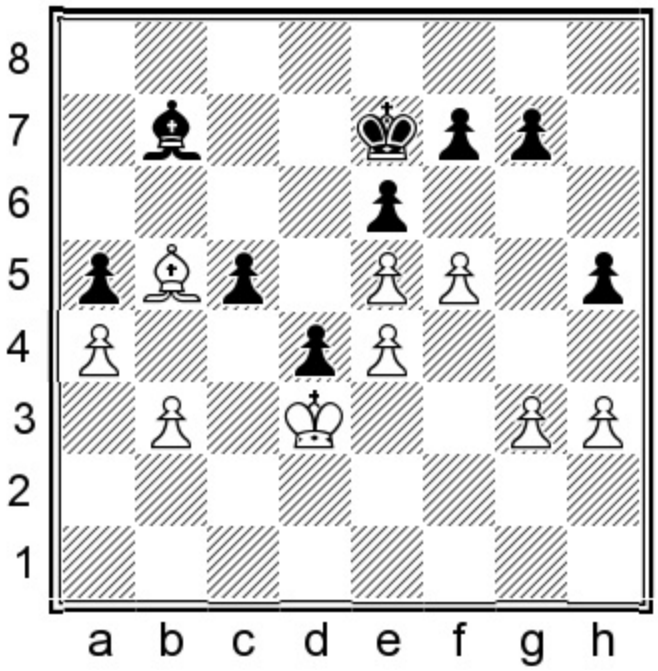
2.♔d2 ♔e7 3.h4 is slightly trickier, aiming to exploit the weakness on h5, but Black still prevails after: 3...f6 4.fxe6 ♔xe6 5.exf6 ♔xf6 6.♗e2 ♗xe4 7.♗xh5 a5 8.♗e2 ♗d5 9.♗d1 ♗f7 10.♗c2 ♗g6 11.♗d1 ♔e5 12.♗e2 ♗f7 13.♗d1 ♔e4–+

2...♔e7 3.♔d3 a5

3...♗c8!? 4.b4 cxb4 5.♔xd4 exf5 6.exf5 ♗xf5 7.a5 ♗e6 also seems to work.

4.h3

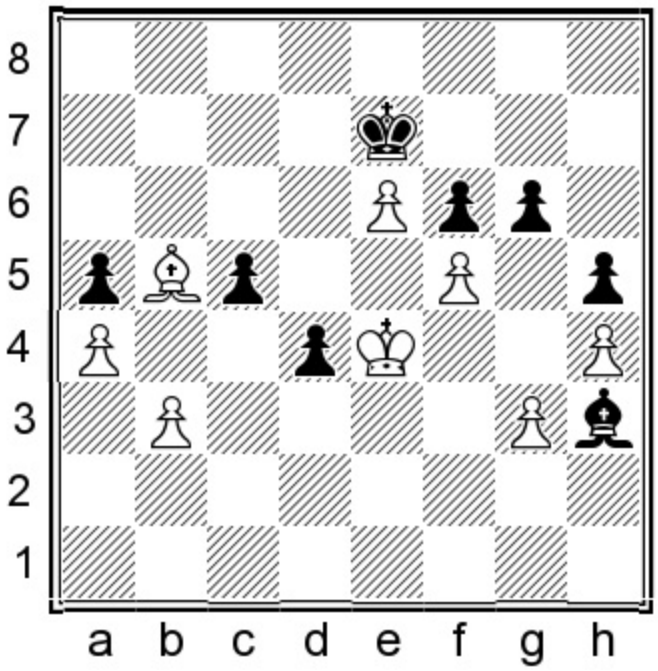
4.♗c4 ♗c8 wins.



4...exf5! 5.exf5 ♗g2! 6.h4 f6!

An instructive way of undermining White's pawns.

7.e6 ♗h3 8.♔e4 g6



9.♔d5

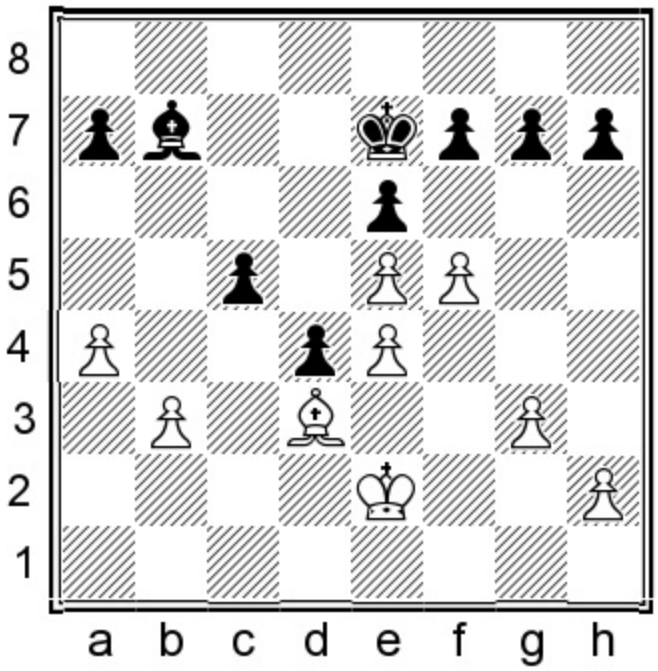
Or 9.fxg6 ♗xe6–+ and the b3-pawn drops, as exchanging bishops on c4 would leave White in a hopeless pawn endgame.

9...♗xf5 10.♔xc5 d3

Black is winning, although some of the winning lines here were more complicated than the two optimal winning continuations shown below.

1...♔e7!

This seems the most practical choice to me, giving the additional option to capture on f6 with the king, but the ideas behind the moves are similar.



2.g4

The most logical move, hoping to either advance the king or play g4-g5 next, but White isn't in time.

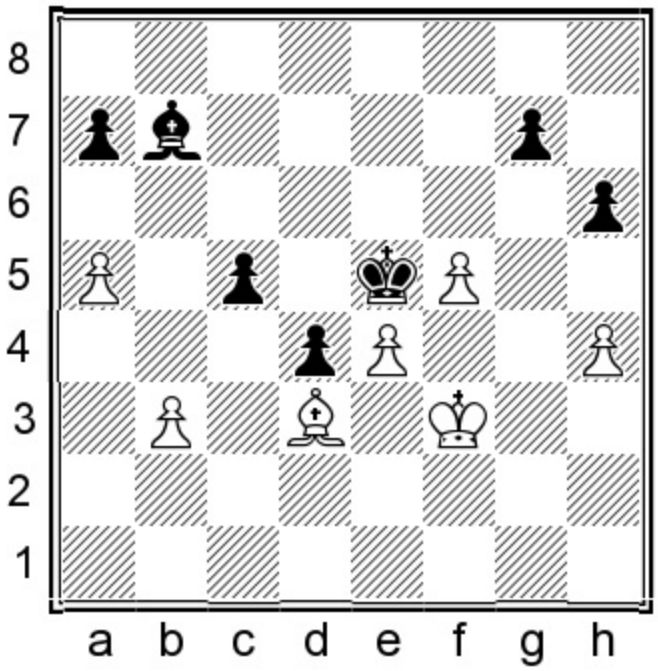
a) It's crucial that the white king can't advance due to 2.♔f3? exf5 with a pin.

b) 2.a5!? f6 3.exf6† sets a trap:

b1) 3...♔xf6? allows 4.e5†! ♔xe5 5.fxe6 when White might survive due to 5...♔xe6 6.♗xh7.

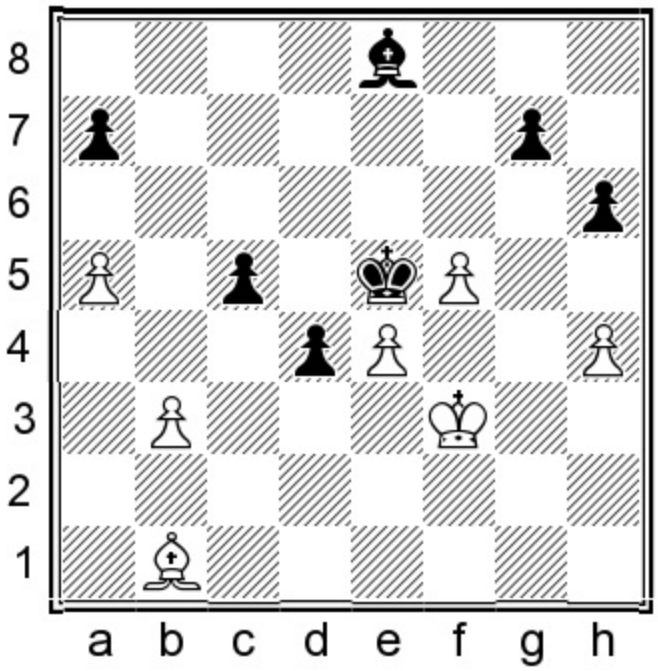
b2) 3...gxf6! keeps control. For instance: 4.fxe6 (the related idea 4.e5 fxe5 5.fxe6 e4 6.♗c4 ♗c8 also doesn't work4...♔xe6 5.e5 and now both 5...f5 and 5...fxe5 6.♗xh7 e4 win easily.

2...f6! 3.exf6† ♔xf6 4.♔f3 exf5 5.gxf5 ♔e5 6.a5 ♗c6 7.h4 ♗a8 8.♗c2 ♗b7 9.♗d3 h6



White's problem is the same as in the 1...f6 lines shown below: White can't find a way to pass without making a concession.

10.♗c2 ♗a6 11.♗b1 ♗f1 12.♔f2 ♗b5 13.♔f3 ♗e8

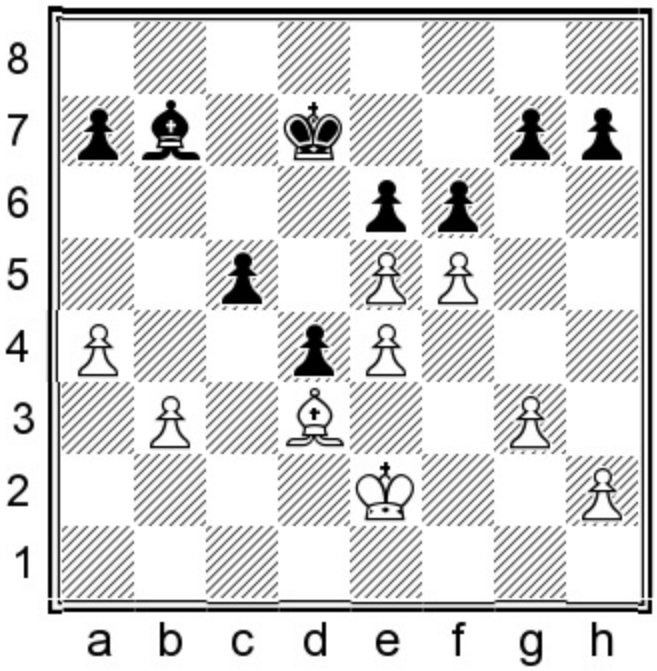


14.♗d3

Or 14.♗c2 ♗h5† 15.♔g3 ♗e2 and Black infiltrates.

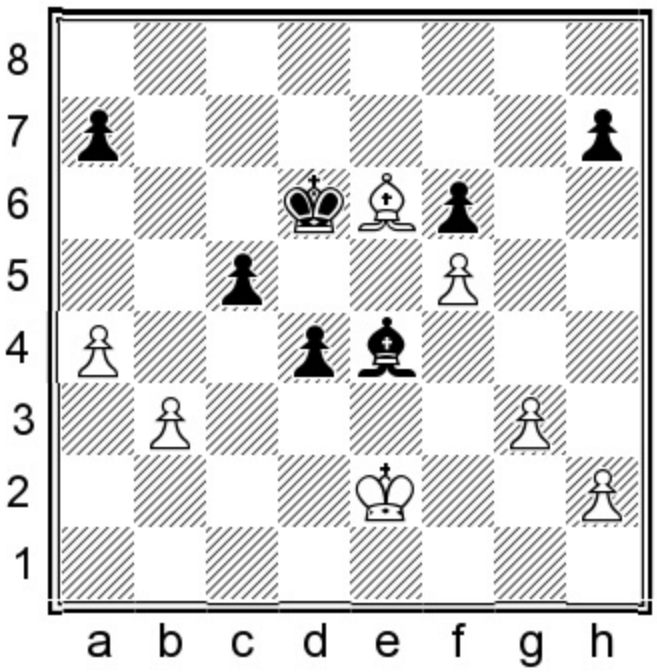
14...♗h5† 15.♔f2 ♗d1

The pawns start dropping off.



2.exf6

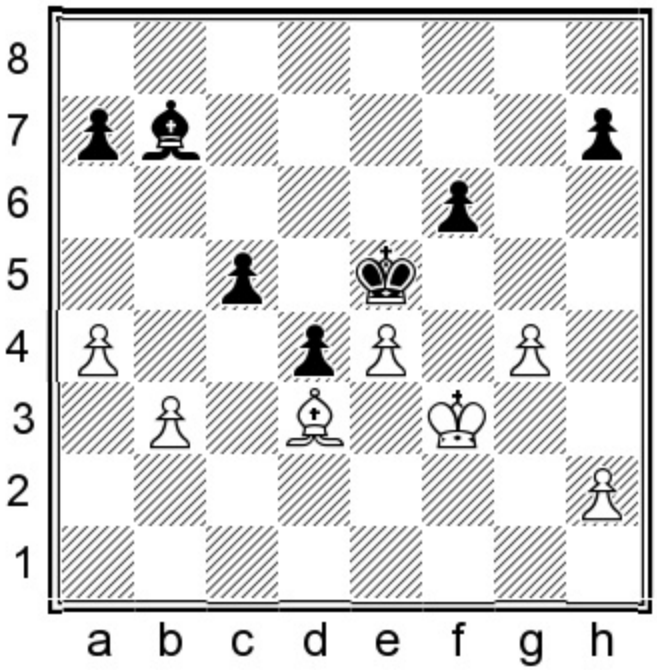
2.♗c4!? is a decent try, but after 2...♗xe4! (but not 2...exf5? 3.e6†! ♔e7 4.exf5=) 3.exf6 gxf6 4.♗xe6† (4.fxe6† ♔e7 5.g4 a5 6.♔f2 ♗b7 rounds up the e6-pawn) 4...♔d6 Black's king is free to roam:



5.a5 ♔e5 6.g4 ♔f4 7.h3 ♗g2–+

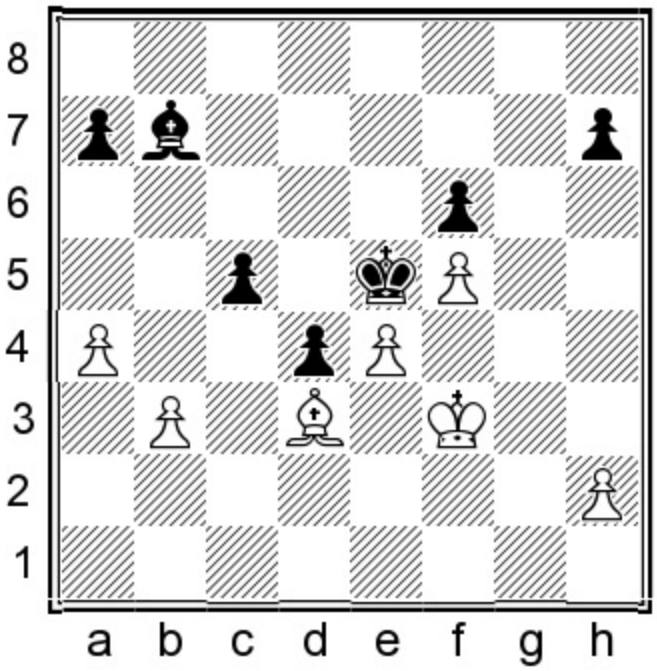
2...gxf6 3.g4

3.fxe6† ♔xe6 4.♔f3 ♔e5 threatens ...f5, so 5.g4 is forced.



5...a5 Black has time to fix the queenside. 6.h4 h6 7.♗c2 White is facing a nightmare scenario, with passive pieces and lots of vulnerable pawns7...♗a6 8.♗b1 c4 9.bxc4 ♗xc4–+ White will soon have to resign.

3...♔d6 4.♔f3 exf5 5.gxf5 ♔e5



A typical situation in a same-coloured-bishop endgame: White is totally passive and eventually runs out of acceptable moves, and is forced to fatally weaken the position. All Black has to do is keep on waiting, and forcing White to concede ground, gratefully banking every concession.

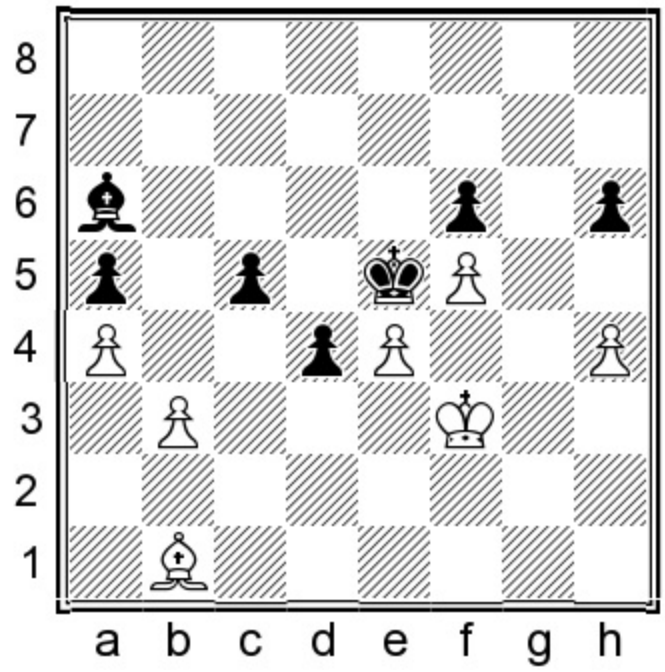
6.a5

White may as well place one pawn on a dark square.

White's queenside structure is even weaker after:

6.h4 a5 7.♗c2 ♗a6 8.♗b1 h6

White will soon have to give ground.



9.♗c2

9.♔f2 ♔f4–+ is easy.

9.♔g3 d3 10.♔f2 d2–+ and Black will soon start mopping up.

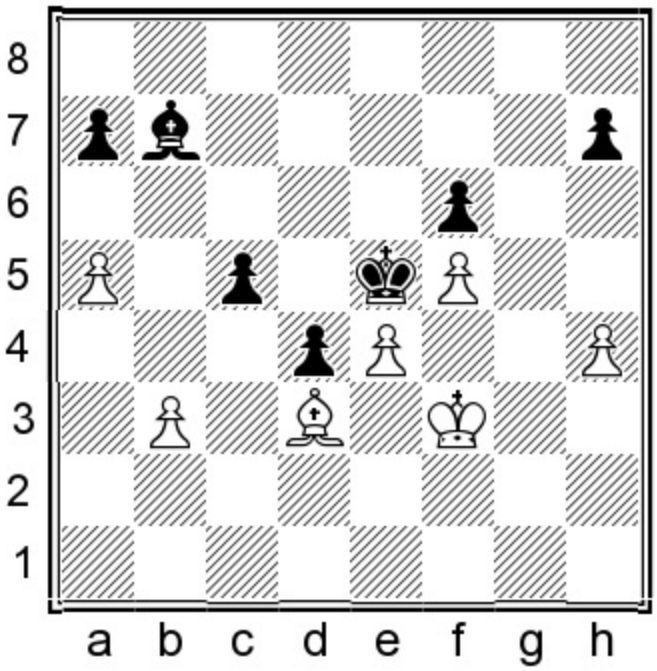
9.h5 ♗b7 10.♗d3 ♗c6 11.♗c2 ♗e8 12.♔g4 ♗f7–+ and the three weak pawns on light squares seal White's fate.

9...d3 10.♗d1 ♔d4 11.♔f4 ♗b7

Black wins.

6...♗c6 7.h4 ♗b7

Black can mark time and wait for White to run out of useful moves. In a moment, the bishop will have to move from d3, allowing an invasion along the a6-f1 diagonal.



8.♗b1

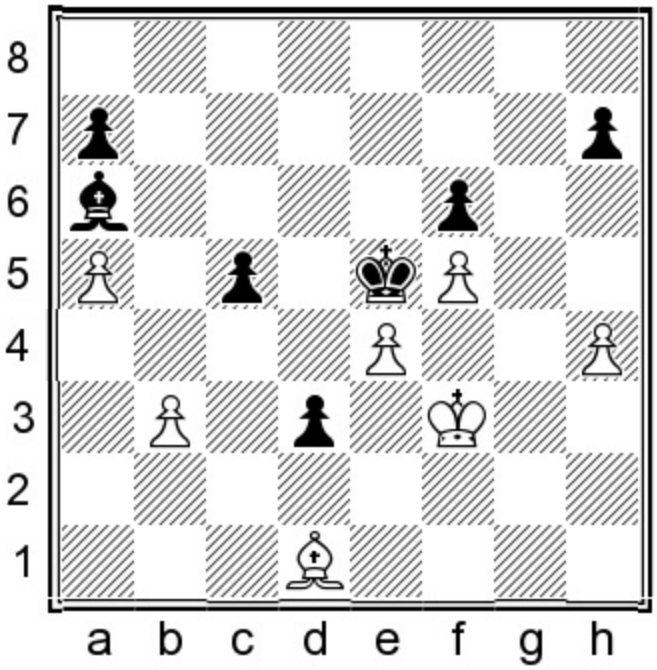
There are no more decent pawn moves, as both 8.h5 h6 and 8.a6 ♗c6 leave White in the same predicament, but with yet another pawn on a light square.

8.♗c2 ♗a6 9.♗b1 ♗b5 10.♗c2 d3 sees Black infiltrate in a familiar way.

8...♗a6 9.♗c2

9.♔g3 d3 wins.

9...d3 10.♗d1



10...♔d4!

Even better than 10...♗b7 11.♔e3 ♗xe4.

11.♔f4 ♗b7

Black wins easily.

Scoring for Puzzle 37

Best move	Score	Evaluation
1...f6	**10**	**–2.5**
1...♔e7	**10**	**–2.5**
1...h5	5	–1.6
1...a5	3	–1.2
1...♗c6	2	–0.7
1...h6	2	–0.7

Bonus points for correct evaluation

Between –0.6 and –0.89	1 point
Between –0.9 and –1.39	2 points
Lower than –1.4	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I think this position is very instructive. During my game, I did not even suspect there could be a win. Club players and low-rated players will struggle finding it. GMs hit on the idea almost immediately.

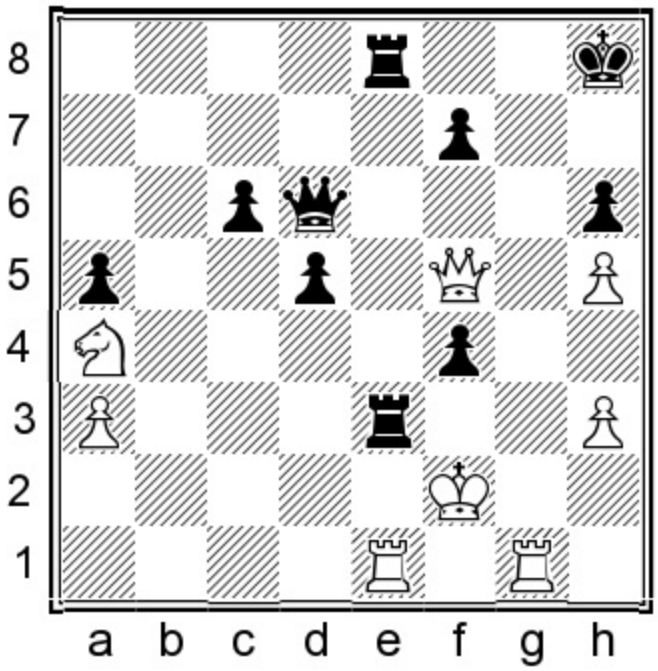
Adams Insight

The king is a key piece in the endgame, and the winning plan involves clearing a path for the black monarch to take a dominant role in the following moves. However, the way to expose the chronic

weakness of White's dark squares isn't so obvious in the starting position. The pawn on e5 currently gives White some important dark-square influence, but once it is swapped, the black king has a clear roadmap to the centre. White can't remedy this problem by playing ♔f3-f4 as this will allow ...exf5, winning a pawn due to the pinned e-pawn – a key detail. Louise gave the line 1...f6 2.exf6 gxf6 3.♔f3 without realizing that 3...exf5 wins a pawn.

After Black has removed the e5-pawn by playing ...f6, either immediately or after preparing this move with 1...♔e7, the way to advance the king into the heart of White's position becomes clearer. This is the way to exploit Black's better structure and superior bishop. Once both of Black's pieces are dominating their counterparts, the strain on White's various weaknesses mean the defence will eventually collapse as White runs out of useful moves.

Puzzle 38



Black to play – Level 8

Show/Hide Solution

Puzzle 38 – This Puzzle Is Difficult

Sebastian Reyes
Elo 2272

This is an unbalanced position, where White has a knight for three pawns.
01:00 The position is very complex, as both kings are exposed. So a material advantage is not such an important factor.
02:50 I don't think the exchange of rooks is advisable here. I would have to see the resulting

endgame.
03:45 1...♖xe1 2.♖xe1 ♖xe1 3.♔xe1 ♕e6† 4.♕xe6 fxe6 and it seems Black has a solid position. Although I would imagine White has a way of mopping up Black's pawns with the knight, starting for example with 5.♘c5.
04:30 Therefore exchanging queens might not seem like the best idea.
Maybe the best strategy is to look for a mating net. But at the same time Black has to be careful with 2.♕f6† though.
05:45 1...f3 2.♖xe3 ♕h2† 3.♔xf3 ♖xe3† 4.♔xe3 ♕xg1† There will be quite a few checks available, and I doubt White will be able to take cover from all of them.
I think after 1...f3, 2...♕h2† is inevitable.
06:20 Maybe after the exchanges Black can give some checks and end up taking the knight on a4.
06:30 If not, it will at least be a draw by perpetual.
08:00 My move is **1...f3**.

Evaluation: 0.0

Juan Reyes
Elo 2451

00:30 Black is a knight down. White is threatening 1.♕xf7.
01:00 1...f3 is no good. 2.♖xe3 ♕h2† 3.♔f1 and Black cannot take on e3 because of ♕f6†.
How many pawns do I have for the piece? Three. Can I play 1...♖8e5?
02:00 No. There is 2.♕c8† ♖e8 3.♕xe8†.
03:00 There seems to be no good moves other than try and give checkmate.
04:15 1...♕e7 I am threatening to take your rook on e1. 2.♕xf4 ♖e2† 3.♔f3 and I cannot take on e1 because of ♕h6† mate.
I can't see a way for Black to win. On the contrary, it seems I have to defend.
07:30 1...♖xe1 2.♖xe1 ♖xe1 3.♔xe1 ♕e7† 4.♔f1 (for example) 4...♕e3 5.♕f6† ♔g8 and White has at least perpetual.
10:00 I could play 1...d4, with the idea of playing 2...f3 next move.

12:00 1...d4 2.♕g4, threatening mate on g7. 2...♕e5, stopping mate and threatening the rook on e1. And I am getting quite active.
1...d4 2.♘c5 f3 3.♖xe3 dxe3† 4.♔xf3 and now maybe the subtle 4...e2, threatening to queen.
14:00 If 5.♘d3 ♕d4!; if 5.♔f2 ♕h2†; if 5.♖e1 ♖e5 and I am attacking both your queen and the knight, and you have to defend.
18:00 I like **1...d4**, with advantage to Black.

Evaluation: >–1.5

Julio Granda
Elo 2630

00:45 This is not easy. I can obviously see White's king is weak. But before I move my queen I have to be careful that White does not play ♕f6†.
01:20 1...♕e7 is the most logical move I can think of.
02:00 1...♕e7 2.♕xf4 ♖e2†! 3.♔f3 ♕xa3† wins.
02:15 1...♕e7 2.♕g4 threatens mate. 2...f5 looks very strong for Black.
We still have explore other options. But 1...♕e7 looks very strong.
02:45 It seems White cannot stop all of Black's threats.
03:00 1...♕e7 is decisive.

Evaluation: >–3.0

Michael Adams
Elo 2701

00:15 Black has three pawns for the piece. Looks like a very sharp position, with both kings exposed.
00:30 1...♕e7 with the idea of ...♕h4†.
01:30 1...f3 is not playable because of 2.♖xe3. So, 1...♕e7.
01:40 1...♕e7 2.♖xe3? ♕xe3† wins.
03:00 1...♕e7 2.♕g4 f5! That's deadly.
1...♕e7 looks like the best move. The threat of ...♕h4† is looking really strong.
04:00 If 2.♕g4 f5! wins. If 2.♕xf4 ♖e2† wins.
05:00 2.♖b1 also loses.
06:45 I think 1...♕e7 is the strongest move, and Black is winning either after 2.♕g4 or 2.♕xf4.

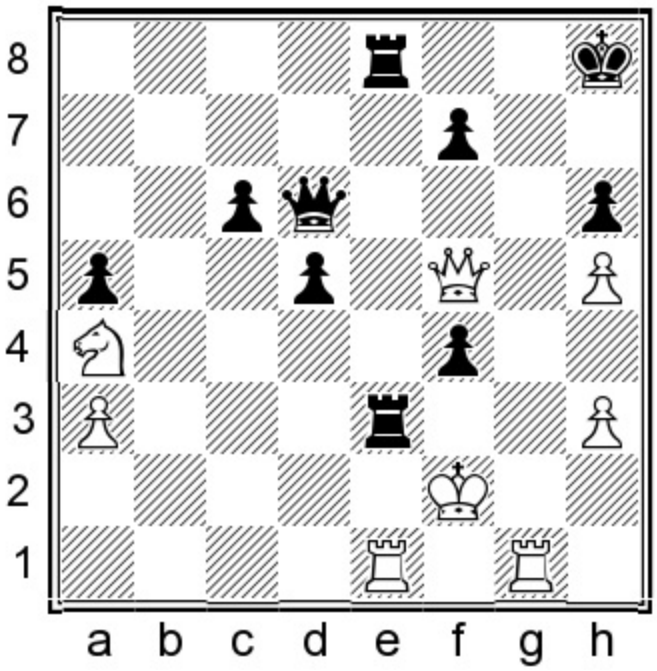
1...♕e7

Evaluation: >–4.0

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

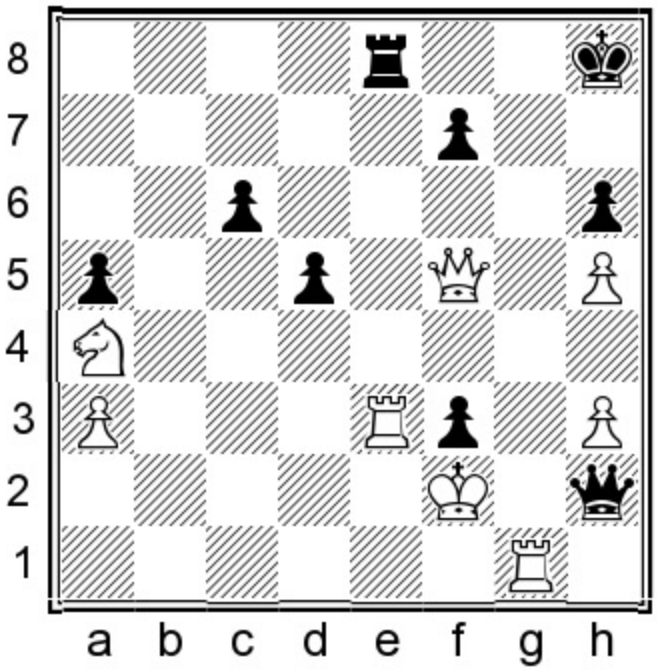
Internet (blitz) 2019



In this razor-sharp position, both sides must try to balance attack and defence. Although Black's king is not too comfortable, White's monarch is even more exposed, and the dominant position of the black rooks on the e-file is also a factor. The extra piece doesn't exert any immediate influence, stranded on the wrong side of the board. Black has to look to get in the first check which will be decisive.

1...♕e7!

The strongest and most forcing human move. Accurate calculation reveals that White's king is in the most trouble here. White has two tries to make some threats of his own, but neither is sufficient. 1...f3?? 2.♖xe3 ♕h2† loses after:



3.♔f1! (3.♔xf3? ♖xe3† 4.♔xe3 ♕xg1† 5.♔e2± isn't as easy.) 3...♖xe3 4.♕f6† ♔h7 5.♕g7#

1...♖xe1? 2.♖xe1 ♖xe1 3.♔xe1 ♕xa3 4.♕xf7 and one side or the other will give perpetual.

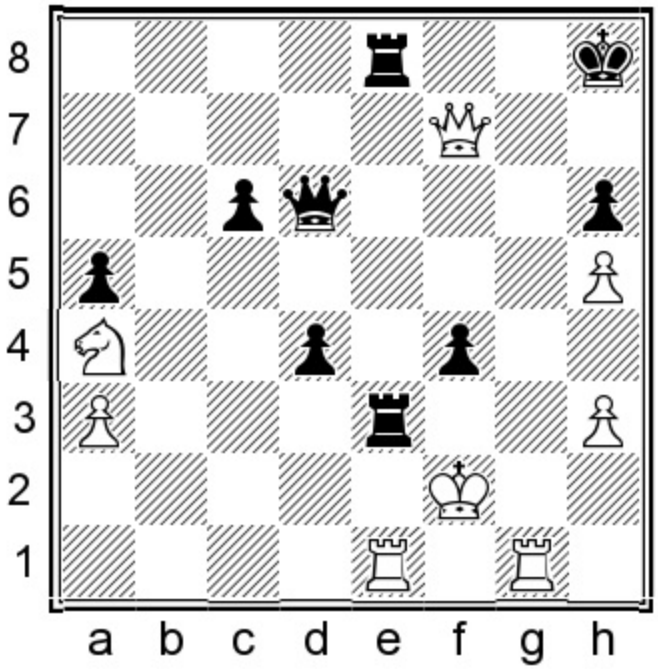
1...d4!

Surprisingly, this quiet move also wins, even though it doesn't create a deadly threat. Despite the open position of both kings, there is no need to hurry. There is no good way to prevent the black queen from transferring to the e-file in the future.

2.♕xf7

a) 2.♖xe3 allows Black's passed pawn(s) to become too powerful: 2...dxe3† (2...fxe3† 3.♔e1 d3 also wins) 3.♔f3 e2 4.♕xf7 ♕d3† 5.♔g4 (or 5.♔xf4 ♕e3†) 5...♖g8† 6.♔xf4 ♖xg1–+

b) 2.♘c5 forces Black to revert to the method of the main solution with: 2...♕e7! (2...f3? allows White to escape after 3.♖xe3 dxe3† 4.♔xf3 e2 5.♖e1 ♖e5 6.♕xf7=) 3.♕xf4 ♖e2† 4.♔f3 ♕e3† 5.♕xe3 ♖8xe3†–+



2...♕e5!

The queen is dominant here, joining the attack and covering g7. Black will still get the crucial first check.

3.♖xe3

This leads to a forced mate, but White's only other options were to give up a rook to swap queens or allow a deadly check on e2 (or the blunt ...♖xe1).

3...♕xe3† 4.♔g2 ♕g3† 5.♔h1

5.♔f1 ♖e1#

5...♕xh3#

2.♕g4

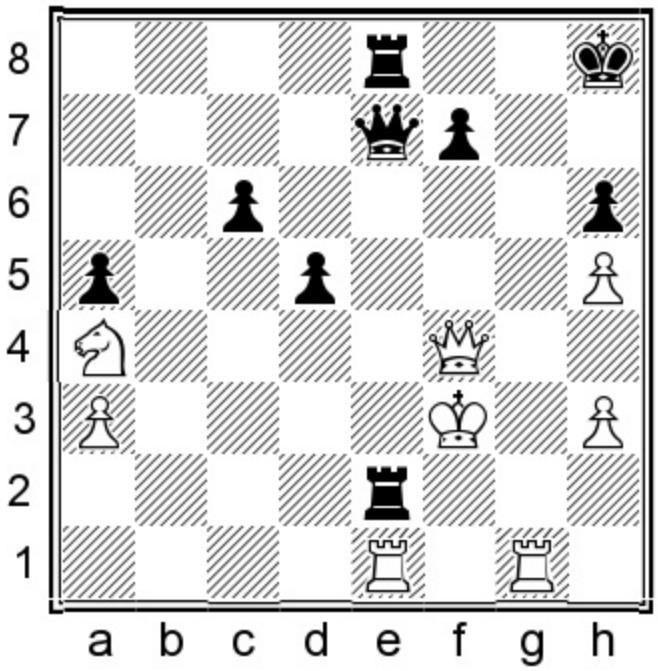
2.♖xe3 ♕xe3† 3.♔g2 ♖g8† wins.

The other main option to calculate is:

2.♕xf4 ♖e2† 3.♔f3

3.♖xe2 ♕xe2† 4.♔g3 ♖g8† 5.♔h4 ♕e7† wins.

Juan Reyes mistakenly gave this line up to here as a win for White. This gave him the motivation to check the unlikely move 1...d4 in greater detail, and find the win there, so necessity really is the mother of invention! However, a closer inspection reveals a choice of winning continuations for Black:

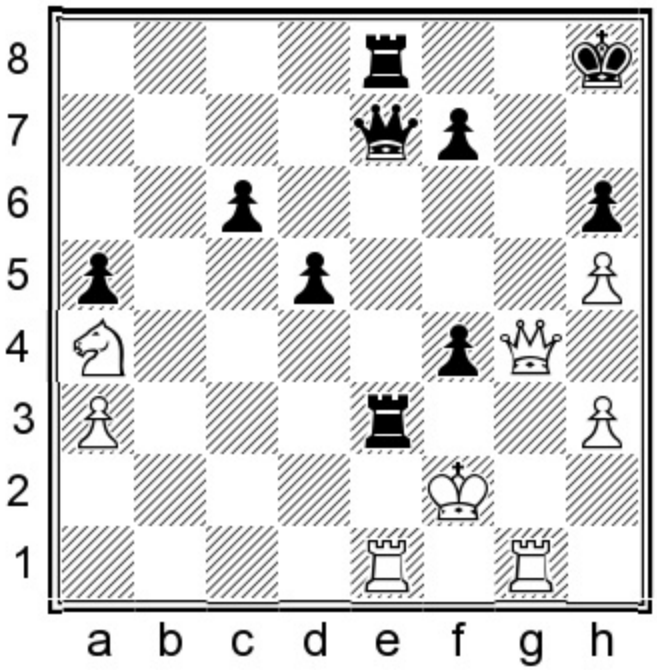


3...♕e3†!

Simplest, although 3...♕xa3† also works: 4.♔g4 ♖g8† 5.♔f5 (or 5.♔h4 ♕e7†) 5...♕xh3† 6.♖g4 ♕xh5† 7.♔f6 ♖g6†–+

4.♕xe3 ♖8xe3†

Followed by collecting the rook on e1.



2...f5!

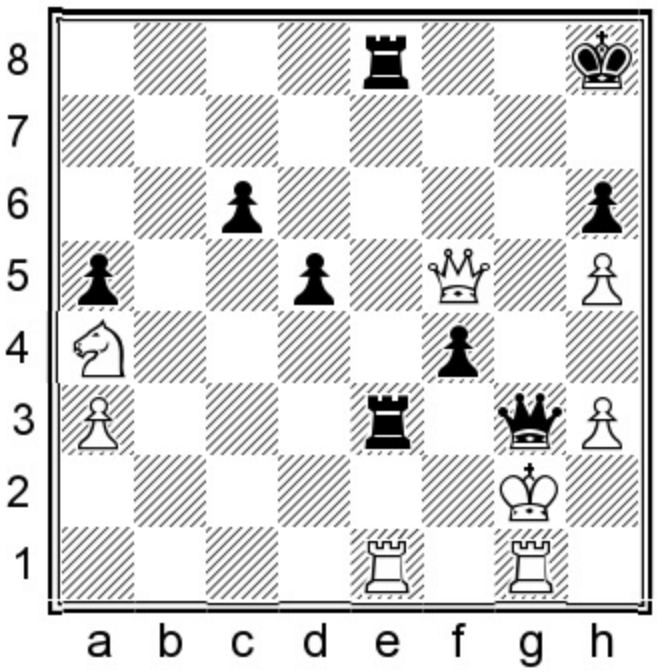
The key point: covering g7 with gain of tempo is crushing.

3.♕xf5

3.♕xf4 loses in the same way as on the previous move: 3...♖e2† 4.♔g3 ♕e3† 5.♕xe3 ♖8xe3† 6.♔f4 ♖xe1–+

3...♕h4† 4.♔g2 ♕g3†

The engine points out that 4...♖xe1! is the fastest route to mate, but the following checking sequence is more human.



5.♔h1 ♕f3† 6.♖g2 ♕xh3† 7.♕xh3 ♖xh3† 8.♔g1 ♖xe1†

With an easy win.

Scoring for Puzzle 38

Best move	Score	Evaluation
1...♕e7	**10**	**–6.5**
1...d4	**10**	**–5.5**
1...Others	1	0

Bonus points for correct evaluation

Lower than –2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This is a very difficult puzzle indeed for 95% of players. Players with a rating below 2200 Elo will struggle finding the best move. Not only did I miss it during my game, I also couldn't find it during the post-mortem analysis.

If you found the correct move, not only do you have excellent calculation skills – I am betting you are a player of at least Candidate Master strength. I am impressed by the speed with which super-strong players narrow down the options, making the solution look simple.

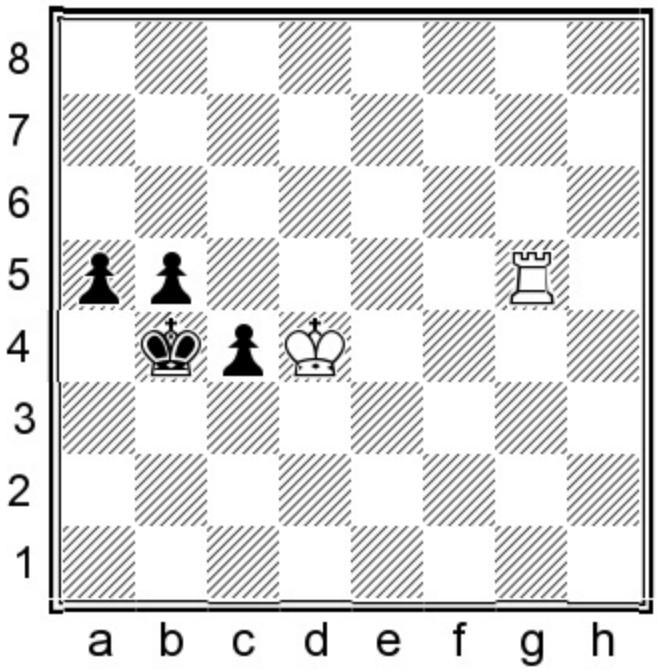
Adams Insight

Here Black seems destined to arrive first with his attack, once you see that the retreat 1...♕e7 has the multiple threats of ...♕h4†, ...♖e2† and ...♖xe1, which can't all be effectively met. Making a backwards move seems surprising in such a sharp position, but threatening checks is the overriding concern here.

However, it is shocking to me that after 1...d4, a move I would have been very unlikely to consider, due to the fact that it doesn't seem urgent enough, is just as effective, as White still can't make a meaningful threat in time to change the result. The much more active black rooks dominating the e-file are an important factor here. Although the black king looks exposed, the main threat White can

set up with a free move is ♕g7 mate, but once Black parries it by covering this square, his king is not in much danger tucked away in the corner.

Puzzle 39



White to play – Level 6
@@

Show/Hide Solution

Puzzle 39 – How To Stop The Pawns?

Jorge Granell
Elo 1673

00:55 1.♖g3 is my first idea. I am cutting the black king from advancing. His only move then is 1...a4.
So 1.♖g3 a4. *(Thinks in silence.)*
04:00 2.♖h3 to see what he does. He can only advance his a-pawn. 2...a3 3.♖h2, and now if he tries to play 3...♔b3 I can play 4.♖h3† with a draw.
(Thinks in silence.)
10:15 Yes, I go for 1.♖g3 and I can get a draw by perpetual.

1.♖g3

Evaluation: 0.0

Nathanael Paul
Elo 1993

00:10 Black is trying to queen by pushing his pawns forward. I am thinking of leaving my rook there for the moment, but 1...a4 is a threat.
00:50 So I am thinking of bringing the rook to the 1st rank, threatening ♖b1†.
01:20 Usually with three pawns against the rook Black should win, but here my king is well placed close to the pawns. So it's different.
02:40 1.♖g1 a4 2.♖b1† ♔a5 3.♔c5 although here Black can play 3...c3. So I go for 3.♔c3 instead. It feels dangerous to have the rook in front of the pawns.
05:45 But actually: 1.♖g1 a4 2.♖b1† ♔a5 3.♔c5 a3 (or 3...c3) 4.♖xb5† ♔a4 5.♔xc4 a2 6.♖b8 Actually, this forces a draw.

(Thinks in silence to analyse the resulting variations.)

09:30 1.♖g1

Evaluation: A draw with best play. (0.0)

Taran Jina
Elo 1912

00:15 I feel White should play to win. Is 1.♔d5 with the idea of ♔c6 any good?
Maybe I can get Black into zugzwang and force him to lose a pawn. It is quite hard though.
Maybe 1.♖g3 blocking the king. But his a-pawn runs.
00:45 Black can't do much, apart from moving his a-pawn forward. If 1...c3 I have 2.♖xc3, and his pawn falls.
03:00 There may also be some mating ideas. After 1.♖g3 all he can do is move his a-pawn. This is an important observation. Is it a good idea to defend from the first rank? 1.♖g1
The problem is that then comes 1...a4 and it's not obvious how to stop the pawn.
05:00 No, 1.♖g1 is dangerous as the pawns march forward.
05:20 It is quite challenging to stop the pawns.
07:00 1.♖c5 looks like an obvious way to stop the c-pawn. But then he moves 1...a4. 1.♖c5 loses.
Let's try 1.♔d5 c3 2.♔c6 c2 3.♖xb5†. If the king goes to the c-file it is a draw. But he can go 3...♔a4 4.♖c5 ♔b3.
10:00 1.♔d5 might be potentially a draw, but looks so wrong though! The king is miles away. It can't be good.
It's quite challenging to find something! Let's go back to 1.♖g3.
13:20 1.♖g3 a4 and I can't find a good move. I am torn!
Let me try 1.♔d5 again. Why am I wasting so much time on ♔d5? The move looks so stupid!
Let's try 1.♔d5 c3 2.♔c6 c2 3.♖xb5†. If the king goes to the c-file, it's a draw. But he can go 3...♔a4.

Let’s try 1.♖g3 again...
1.♖g3 a4 (only move) No, I can’t stop the a-pawn.
1.♖g1 again. No. 1.♔d5 seems the most promising move for a draw then.
1.♔d5 a4 2.♔c6 a3 3.♖xb5†
21:00 I feel **1.♔d5** is White’s best option to draw.

Evaluation: 0.0

Michael Adams
Elo 2701

00:30 Feels like I have to play my rook backwards. Try and get the rook to g1.
01:00 I don’t think 1.♖g3 a4 is any good.
01:30 So 1.♖g2 or 1.♖g1 would be my candidate moves. Normally, 1.♖g1. Not sure.
01:45 On 1.♖g2 ♔b3, there are no checks with the rook.
02:00 If I go 1.♖g1, I have a check available on b1.
05:00 So: 1.♖g1 ♔b3 2.♖b1† ♔c2 3.♖xb5 c3 4.♖c5 a4 5.♖xc3† ♔b2 6.♔c4 should win.
06:00 And if 1.♖g1 ♔a3 2.♔c3 looks winning for me.
1.♖g1 a4 seems the most logical. It seems White is controlling the pawns.
06:30 I don’t think the pawns are as dangerous, as the white king is well placed, and Black’s pawns can be taken very fast.
06:40 It’s clear 1.♖g1 is the best move.
06:45 I don’t see a defence for Black.

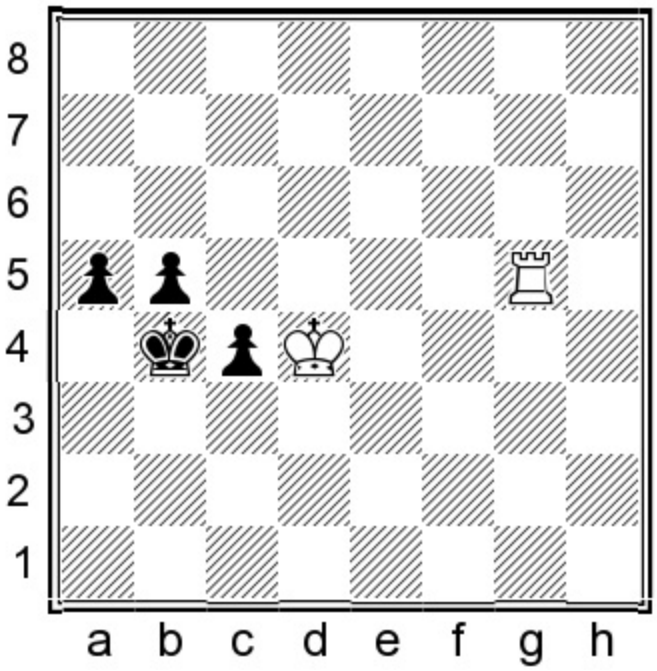
1.♖g1

Evaluation: White wins.

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



It is easy to over-rate advanced passed pawns against a rook. They can often be rounded up in practice, as is the case here. White's rook and king are very well placed, and work together effectively to pick off the foot soldiers.

1.♖g1!

It's natural to retreat the rook to the first rank. This gives the rook checking range, getting ready for ♖b1†, and keeping it as far away as possible from the black king.

1.♔d5? intending ♔c6 was suggested by a few solvers, but the cost of taking the b-pawn is that White's king is left offside. Black has several drawing moves, 1...c3 being the most natural.

1.♖g3? doesn't achieve anything and throws away the win after 1...a4.

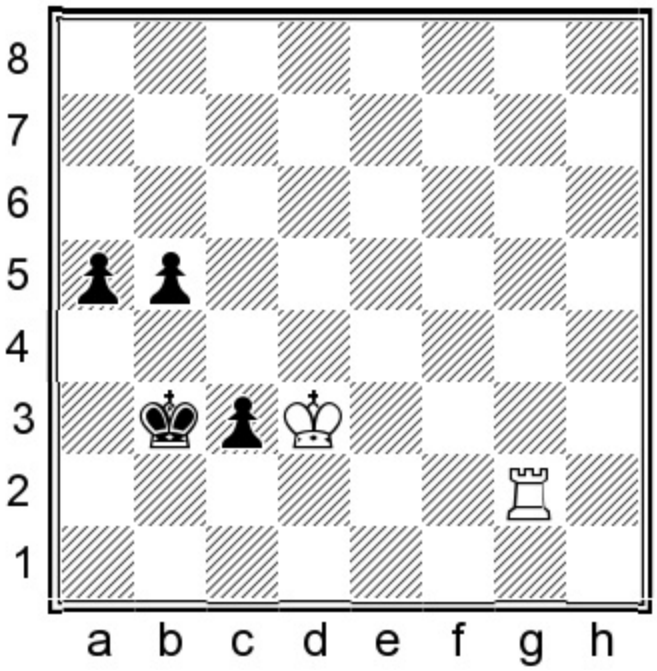
1.♖g2

This is an interesting try, and requires Black to find a number of only moves, but the rook is unsurprisingly better placed further away from the black king.

1...c3! 2.♔d3

2.♖c2 a4 3.♖xc3 a3 leaves White's king too far away from the a-pawn. 4.♖c1 (4.♖c8 a2 5.♖a8 ♔b3=) 4...a2 5.♖h1 ♔b3=

2...♔b3



3.♖g5! b4

3...c2? 4.♖xb5† ♔a4 5.♖c5 wins.

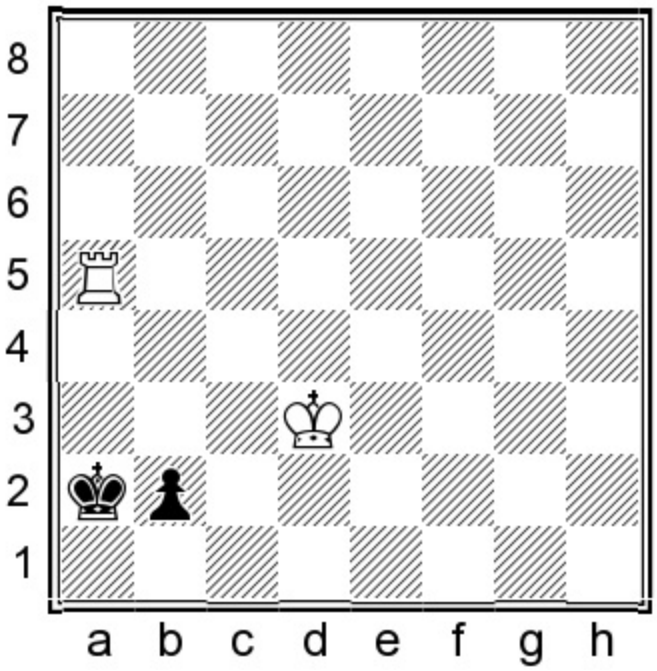
4.♖xa5 ♔b2

4...c2 5.♖c5 wins.

5.♖c5 b3! 6.♖xc3 ♔a2

Black is unexpectedly surviving, as the rook impedes White's king momentarily.

7.♖c5 b2 8.♖a5†



8...♔b1!

8...♔b3? 9.♖b5†+–

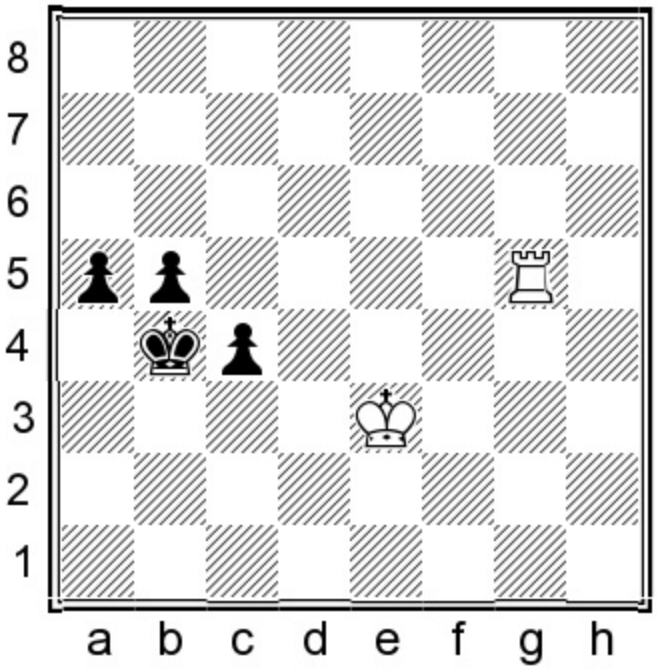
9.♔c3 ♔c1 10.♖e5 b1=♘†!

The underpromotion is essential, because 10...b1=♕? 11.♖e1 is mate.

11.♔d3 ♘a3

Black will draw with careful play.

1.♔e3!



I failed to seriously consider this, but it is definitely an idea I should have thought about. White moves his king over to block Black's pawns: a logical idea, which wins at least as easily as the more natural 1.♖g1. With that being said, it is important to point out that the king retreat only works because of the position of the white rook on the fifth rank, which limits Black's useful moves. As the black king is currently tied to defending the b5-pawn, Black only has a limited range of options which don't lose material immediately.

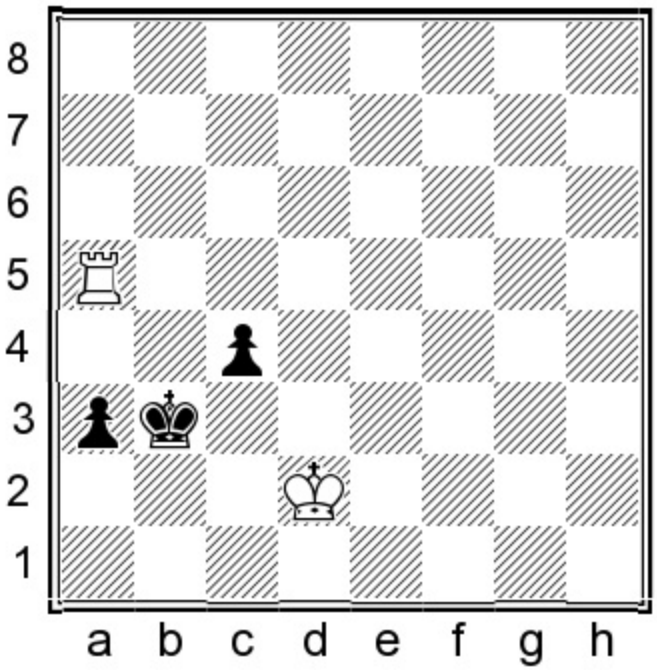
1...♔c3

Obstructing the white king is the best defensive try, despite losing the b-pawn immediately. By the way, if the rook was on any other rank then this move would draw comfortably.

1...c3 2.♔d3 a4 3.♔c2 a3 4.♖g4† wins.

1...a4 2.♔d2 a3 3.♔c2 ♔a4 (3...c3 4.♖g4† and 3...a2 4.♔b2 win for White) 4.♖c5 ♔b4 5.♖c8 ♔a4 6.♔c3+–

2.♖xb5 a4 3.♖a5 ♔b3 4.♔d2 a3



5.♔c1

Black is overstretched and White can simply wait for the pawns to drop off.

5...a2

5...c3 6.♖a7 leads to the same thing.

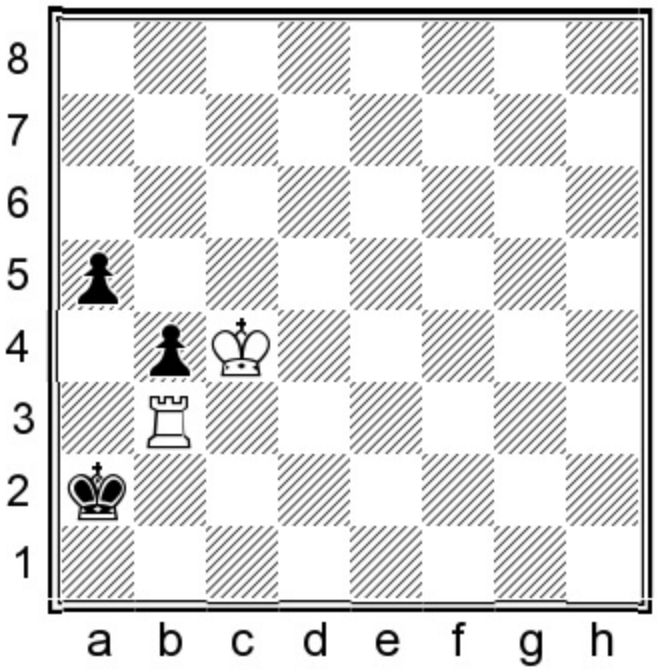
6.♖a8 c3 7.♖a7 c2 8.♖a6+–

Black has run out of moves.

1...♔b3

This is the best try, getting Black's king to a good place to support the a-pawn.

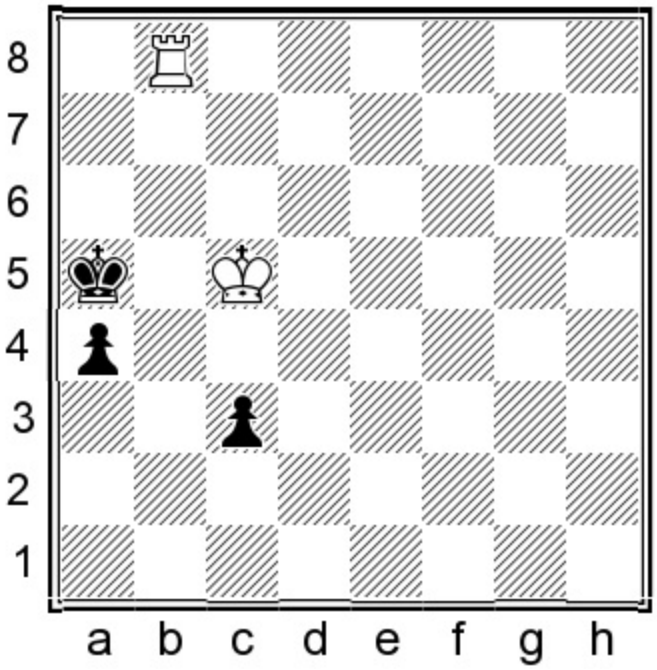
1...♔a3 2.♖b1 b4 3.♔xc4 ♔a2 4.♖b3 leaves Black stuck:



4...♔a1 5.♔b5 ♔a2 6.♔a4 ♔a1 7.♔xa5+–

1...c3 2.♖b1† ♔a3 3.♔xc3 b4† 4.♔c4 ♔a2 5.♖b3 ♔a1 6.♔b5 wins in the same way.

Another winning line is: 1...a4 2.♖b1† ♔a5 (2...♔a3 3.♔c3 ♔a2 4.♖xb5 a3 5.♖a5+–) 3.♔c5 c3 (3...a3 4.♖xb5† ♔a4 5.♖b4† ♔a5 6.♖b8+–) 4.♖xb5† ♔a6 5.♖b4 ♔a5 6.♖b8

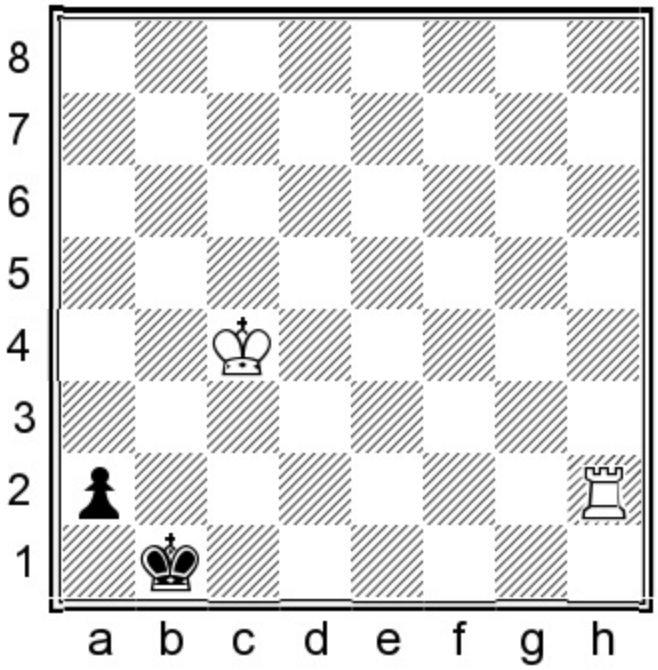


White utilizes the threat of mating with ♖a8 to force the king backwards. 6...♔a6 7.♖a8† ♔b7 8.♖xa4 c2 9.♖c4+–

2.♖b1† ♔c2 3.♖xb5 a4

3...c3 4.♖c5 a4 5.♖xc3† ♔b2 6.♔c4 a3 7.♖b3† ♔a2 8.♔b4+– picks off the last pawn.

4.♔xc4 a3 5.♖h5 a2 6.♖h2† ♔b1



7.♔b3 a1=♘†

7...a1=♕ 8.♖h1 is mate.

8.♔c3–+

This time the underpromotion only delays the inevitable – the knight is in the worst possible place, so White will either capture the knight or deliver mate on the next move.

Scoring for Puzzle 39

Best move	Score	Evaluation
1.♖g1	**10**	**+3**
1.♔e3	**10**	**+3**
1.♔d5	1	0
1.Others	0	0

Bonus points for correct evaluation

More than +2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

I have often encountered similar positions in tournament games, where one side has the rook and the other has a bunch of dangerous pawns. I can tell you that I find such positions very concerning as the pawns move further down the board.

I was wondering how a Super-GM would handle such a materially imbalanced situation. Would he know the outcome by heart, because they have already studied such positions? The answer is no. The Super-GM has to work out the solution over the board, just like the rest of us. And in fact, Michael calculates all the way until he is confident all the black pawns have been neutralized.

Adams Insight

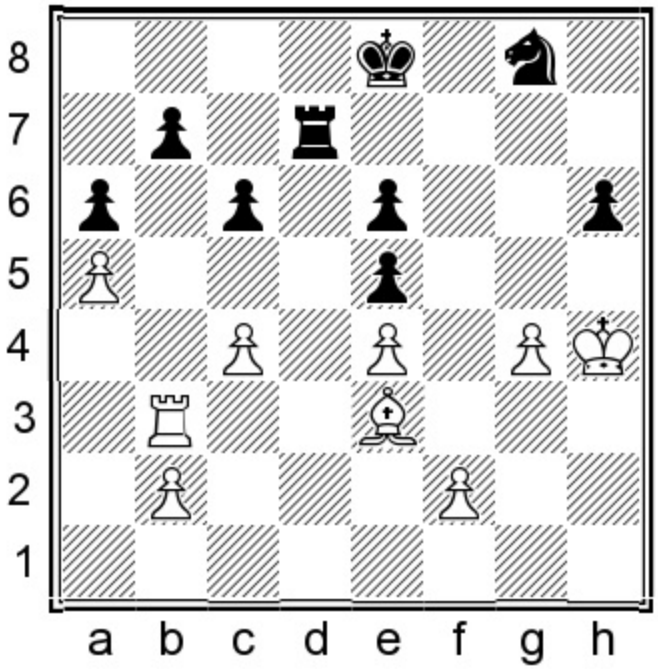
I think the concept of checking distance, and disturbing the well-placed black king, which currently supports all the black pawns and body-checks the white king, are important themes here.

Taran rejected one correct move with this comment: “No, 1.♖g1 is dangerous as the pawns march forward.” However, the pawns are moving forward anyway, so a good way to disrupt that plan is by sidelining the black king.

I was curious to see if anyone would find the equally convincing win 1.♔e3!, which I only saw due to computer prompting. Perhaps not surprisingly, of the nine solvers who were shown this puzzle, none of them even considered the king retreat. It feels strange to move the king away from the pawns, but

it works very effectively, as there is time for the monarch to get in front of Black's pawns via the scenic route. In these endgames, the king belongs in front of the pawn. This would intuitively make me dubious about heading in the other direction by playing 1.♔d5?, which was suggested a few times.

Puzzle 40



White to play – Level 7

Show/Hide Solution

Puzzle 40 – Logical Thinking

Jorge Granell
Elo 1673

01:10 My intuition tells me 1.g5 might be the move.
00:35 1.g5 hxg5 2.Bxg5 The bishop dominates the knight, and is much more active.
01:20 Yes, I play 1.g5. This looks like a very good move.
(Thinks a bit longer before deciding on the evaluation.)

02:35 1.g5

Evaluation: +3

Andrew McCumiskey
Elo 2017

00:30 Another nice endgame. Bishop against knight. White should be going for the win here. Black is going to play 1...♘f6. Black is fairly tied up.
02:00 My king can go to h5. 1.♔h5 ♘f6†, but 2.♔xh6 ♘xg4†.
02:30 Could I sac the bishop? 1.♗xh6 ♘xh6 2.♔h5 No. It doesn't do anything.
02:45 What about if my bishop takes the e-pawn? But how do I engineer that?
03:30 Say, 1.♗a7. Oh! That looks horrible for Black.
1.♗a7 looks nasty. Yeah, 1.♗a7. What is Black going to do against that?
04:40 He can't move his rook. Yeah. I like it!
05:15 Okay. My mind is made up. I am going for 1.♗a7 with the idea of playing ♗b8 and taking the e-pawn.

1.♗a7

Evaluation: +3

Julio Granda
Elo 2630

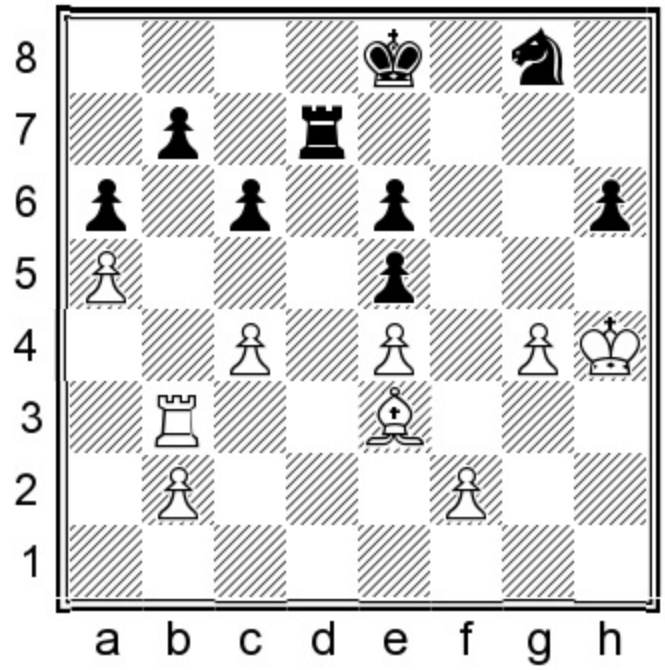
00:15 What a nice king.
00:40 The position looks very comfortable for White. But now we have to find something concrete. This position is more complicated than it looks. It is not easy to find a continuation. I want to attack one of his weaknesses.
03:00 The h6-weakness is defended. So we have to look at the other weakness, the pawn on e5. I am thinking of getting my bishop to g3 to attack it. I was thinking of the manoeuvre f3, ♗f2 and ♗g3. But I don't like 1.f3 so much. It takes away squares from the rook. It prevents my rook moving to the kingside at a later stage, should I need it.
03:30 So 1.f3 must be avoided for the time being.
Ah! I solved it! What a nice move. Do you know what the nice move is?
1.♗a7! Really nice.
03:45 1.♗a7 ♘e7 2.♔h5
04:15 Yes, I am convinced that 1.♗a7 is the move.

Evaluation: +1.10

Deeper Analysis by Michael Adams

Sharjah 2017

1.e4 e5 2.♘f3 ♘c6 3.♗c4 ♗c5 4.0-0 ♘f6 5.d3 a6 6.c3 d6 7.a4 0-0 8.♖e1 ♔h8 9.h3 h6 10.♘a3 ♗xa3 11.♖xa3 ♗e6 12.♗xe6 fxe6 13.d4 ♕e8 14.dxe5 ♘xe5 15.♘xe5 dxe5 16.a5 ♖d8 17.♕e2 ♕c6 18.♖b3 ♖d7 19.♖b4 ♖fd8 20.♗e3 ♔g8 21.♕c4 ♖d1 22.♖xd1 ♖xd1† 23.♔h2 ♕xc4 24.♖xc4 c6 25.♖b4 ♖d7 26.♔g3 ♔f7 27.♔f3 g5 28.♗a7 ♘g8 29.h4 gxh4 30.♔g4 ♘e7 31.♗e3 ♘g8 32.♔xh4 ♔e8 33.♖b3 ♖g7 34.g4 ♖f7 35.c4 ♖d7



Black's structure is creaking and his pieces are passive, with the rook tied to the defence of b7 and the knight protecting h6. A little manoeuvring to massage the sensitive points, especially the pawns marooned on e5 and h6 as targets for White's bishop, cause a quick collapse.

36.♗a7!

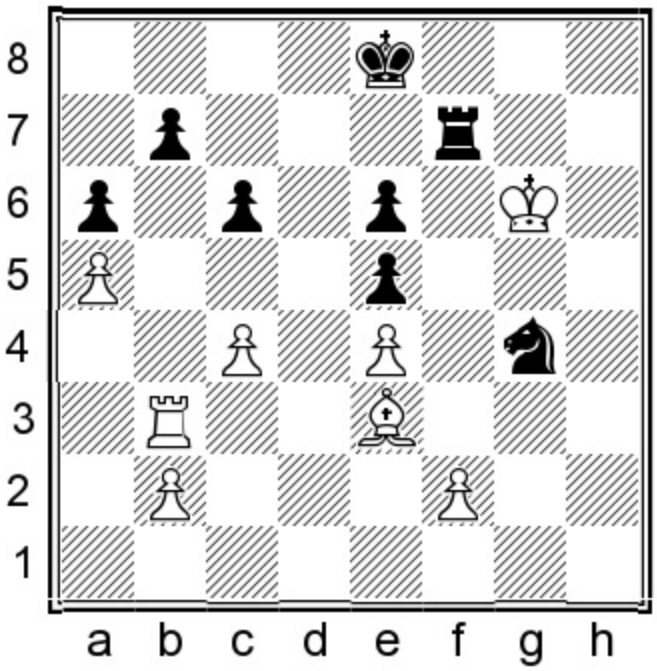
Heading around the back, to target the weak pawn on e5, which is the trickiest to defend. The fact that the computer assessment shows over +3, despite equal material, is a sign of how shattered Black's structure is.

There are a number of waiting moves which don't damage White's position, which score points as they maintain a large advantage, but they don't do much to advance it.

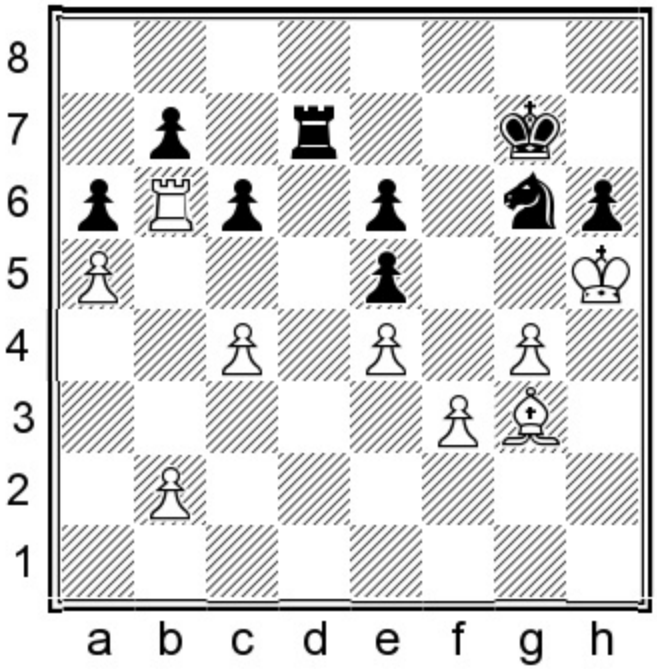
36.g5? is a misjudgement. Black has two weak pawns on h6 and e5 that are targets for White's bishop, and swapping one eases the defensive task. It also frees the king and knight from their defensive roles, so after 36...hxg5† 37.♗xg5 ♔f7 Black's defensive chances have improved considerably.

36.♗c5 isn't directly threatening. Black can play 36...♔f7 and now 37.♖f3†? ♔g6 38.♖f8 ♘f6 would not be a good idea.

36.♔h5 is too direct: 36...♘f6† 37.♔xh6 ♘xg4† 38.♔g6 ♖f7



Compared to the game continuation, Black has much more hope of escaping.
36.f3 pre-emptively defends the e4-pawn but I was reluctant to play this move unless it was absolutely necessary, as it restricts White's rook. The pawn is also very secure on f2, where it is defended by the bishop, compared to one square forward, after which the black rook can eye it from f7. A logical continuation is: 36...♔f7 37.♔h5 ♔g7 38.♗f2 ♘e7 39.♗g3 ♘g6 40.♖b6



This should still be winning for White, but is less convincing than the game continuation.

36...♘f6

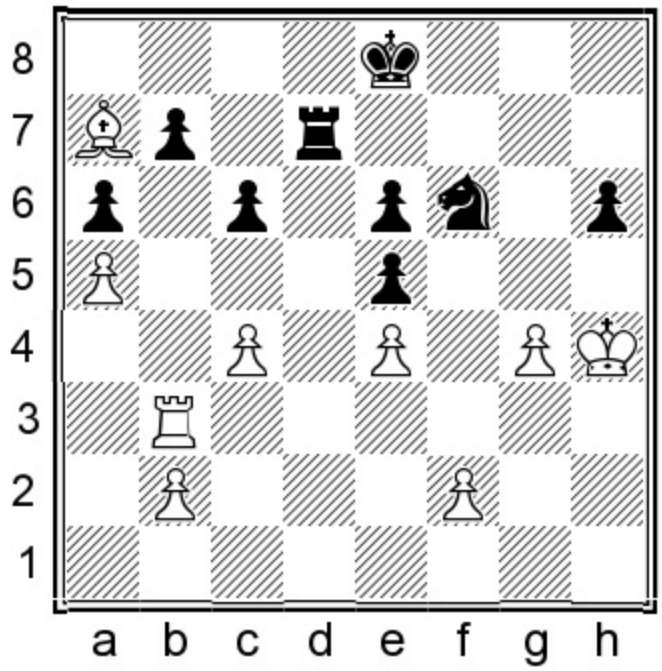
The threat of ♗b8 causes Black to entangle his pieces a bit more, and then something drops off.

Every move results in a concession that Black's compromised structure can't support. For example:

The discovered attack 36...b5? does not work due to 37.axb6.

36...♔f7 37.♗b8 ♔f6 is easily refuted by 38.♖f3†: a simple example of why it was useful to avoid a premature f2-f3.

After 36...♘e7 37.♔h5 ♘g8 38.♔g6 White's king has casually strolled into the heart of Black position. 38...♖f7 39.♗c5 ♖f6† 40.♔g7+–



37.f3

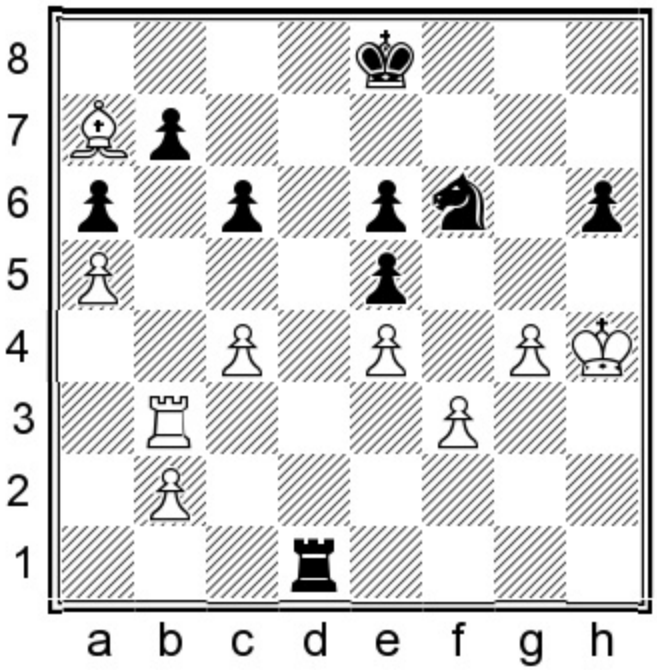
Although Black's knight looks more active now that it is off the back rank, it still has no real prospects, and the pawns on e5 and h6 are both undefended now.

37...♖f7

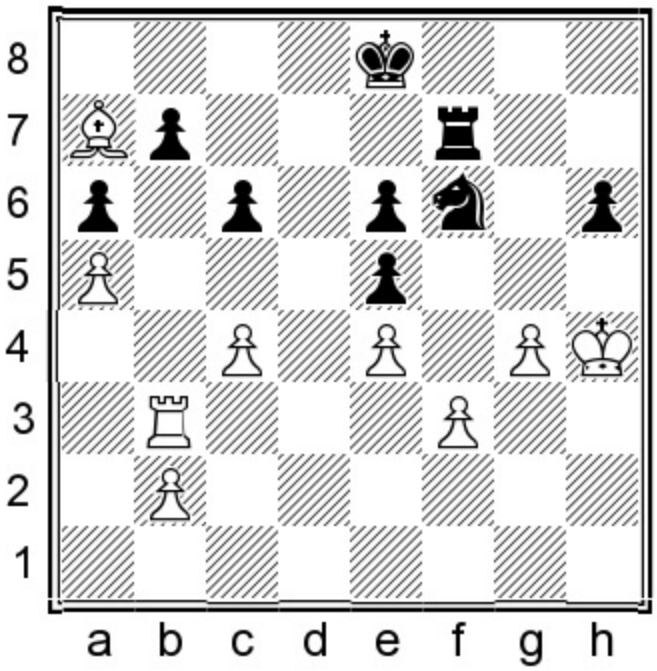
37...♘h7 38.♗e3+– prevents the knight from getting to g5 and wins a pawn.

37...♖g7 38.♗b8 ♘d7 39.♖xb7+– is another simple winning line.

The most precise reply to 37...♖d1 is:



38.♗e3! Lining up another weak pawn rather than grabbing the first available. (38.♖xb7 ♖d3 allows Black some counterplay.) 38...♖h1† (38...♖d7 39.♗xh6+–) 39.♔g3 ♖a1 40.♖xb7 ♖xa5 41.♗xh6+–

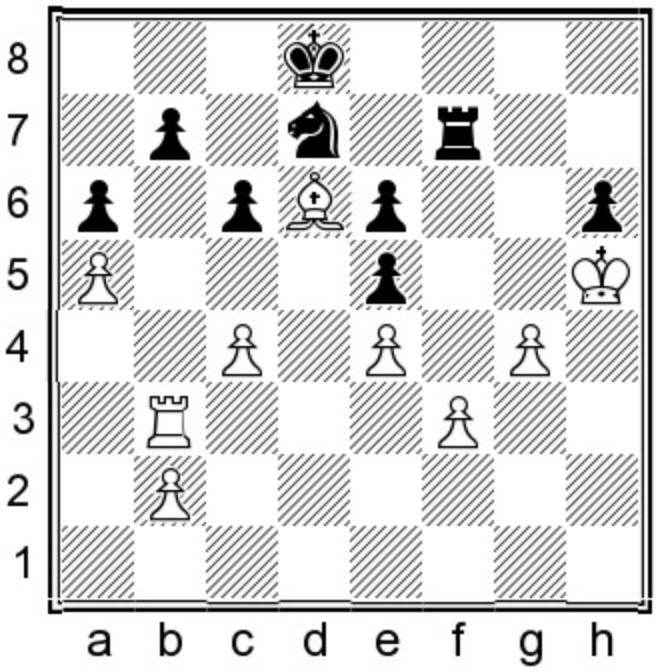


38.♗b8 ♘d7 39.♗d6 ♔d8

39...♘f8 40.♔h5+–

40.♔h5

40.♖xb7 ♖xf3 41.♖a7 with the threat of ♖a8† is good enough, but there is no reason to allow Black a single active move. It's easier just to attack something else instead. With such total control, I was happy to wait for the juiciest pawn to capture.

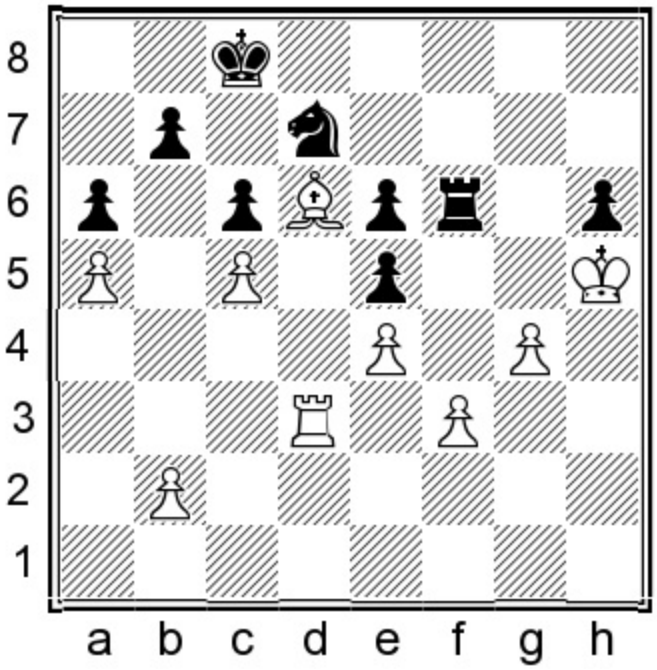


40...♖f6 41.♖d3

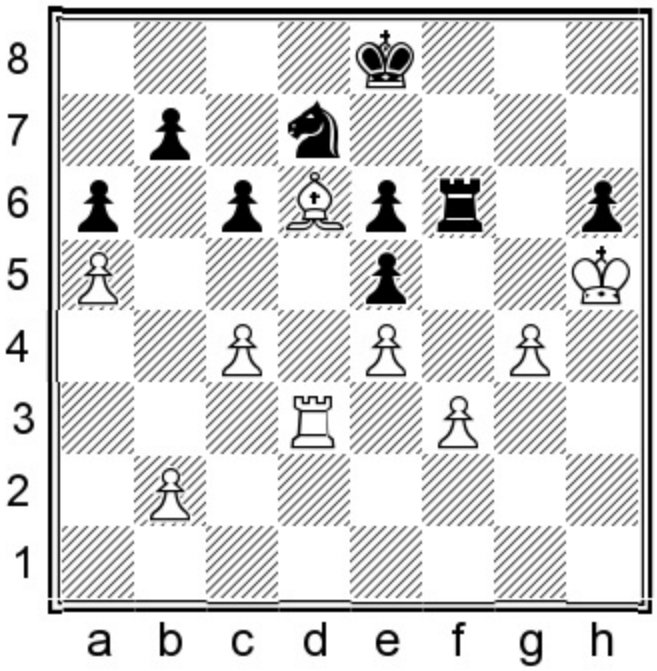
By menacing ♗xe5, I force Black to commit his king.

41...♔e8

41...♔c8 42.c5!+– makes for a pretty picture:



Something has to drop, as every move loses material, 42...♔d8 43.♗xe5 being one example.



42.♗b4!

The bishop redeploys to focus on a more vulnerable target from d2, now that the knight has committed to the defence of the pawn on e5. This also frees the d6-square for the rook if required.

42...c5

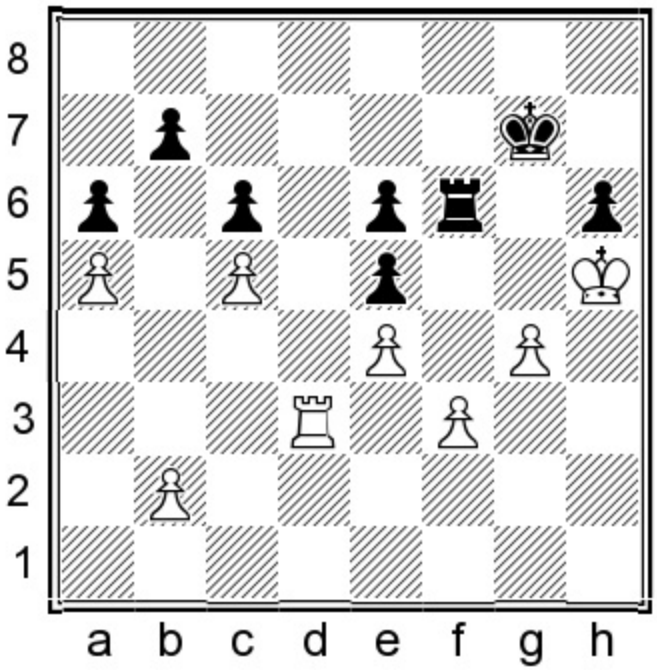
The other plausible continuation is:

42...♘f8 43.♗xf8

Simplifying to a winning rook endgame is simplest, although 43.♗d2 ♘g6 44.♗xh6+– is also perfectly adequate.

43...♔xf8 44.c5 ♔g7

44...♔e7 45.♖b3+–

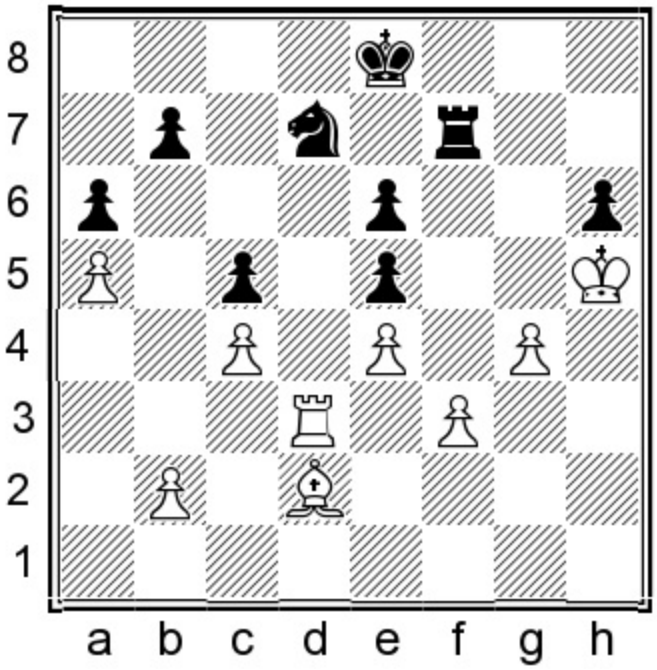


45.♖d7† ♔f8 46.♖xb7 ♖xf3 47.♔xh6

The win is straightforward with the black king stuck on the back rank. For example: 47...♖f4 48.g5 ♖xe4 49.♖b8† ♔e7 50.g6 ♖h4† 51.♔g5 ♖h1 52.♖b7† ♔f8 53.♔f6 ♖f1† 54.♔xe5+–

43.♗d2 ♖f7

43...♘f8 is also hopeless after: 44.♗xh6 ♘g6 45.♗g5 ♘f4† 46.♗xf4 ♖xf4 (46...exf4 47.g5 ♖f8 48.g6+–) 47.g5 ♖f8 48.g6+–



44.♗xh6 ♘f6† 45.♔g6 ♘g8 46.♗g5

1–0

Black resigned due to 46...♘e7† 47.♗xe7 ♔xe7 (or 47...♖xe7 48.♔f6) 48.♖d7† ♔xd7 49.♔xf7 with a trivial conversion.

Scoring for Puzzle 40

Best move	Score	Evaluation
1.♗a7	**10**	**+3**
1.♗c5	5	+2
1.f3	5	+2
1.♗b6	5	+2
1.♖a3	5	+2
1.♖c3	5	+2
1.♖b6	5	+2
1.♖b4	5	+2
1.Others	1	

Bonus points for correct evaluation

Between +0.9 and +1.39	1 point
Between +1.4 and +2.49	2 points
More than +2.5	**3 points**
Any other evaluation gets	0 points

Puzzle Commentary by Phil

This is one of those enjoyable puzzles where the moment you find the move, you know it. Your mind finds peace the very instant you find the move, as it satisfies all the logical requirements you have been looking for.

One of the interesting things about this puzzle, is that every player who solved it went through exactly the same thinking process, no matter how strong they were. The method was:

1) “Try and infiltrate on the kingside, somehow. Not possible”.
2) “What about on the queenside? No, nothing to attack there”.

3) “What are the weaknesses? Ah! That’s interesting, e5 is weak. How can I attack it?”

Adams Insight

I enjoyed this game, one of my better efforts, where I gradually ended up taking control and dominating the board. The long-range bishop move to the edge of the board was the cherry on top of the cake: a pretty way to exploit White’s positional domination, by zeroing in on Black’s most vulnerable weakness from the back rank. As Phil mentions, the move speaks for itself.

Chapter 2.3

Calculate Your Performance

Now it’s time to calculate your performance rating, according to how successfully you solved the puzzles. The first step is to calculate your puzzle-solving score. Use the table below to insert your move scores and evaluation scores for each puzzle, and convert that number into your total percentage score at the end.

Puzzle	Move Score	Evaluation Score	Puzzle	Move Score	Evaluation Score
1			21		
2			22		
3			23		
4			24		
5			25		
6			26		
7			27		
8			28		
9			29		
10			30		
11			31		
12			32		
13			33		
14			34		
15			35		
16			36		
17			37		
18			38		
19			39		
20			40		
Total Scores			**Total Scores**		

How to calculate your Elo performance

To calculate your Elo performance you first need to calculate your puzzle score. This is the percentage score that reflects how well you solved the puzzles. To do this, simply add all the points you scored from the puzzles, and divide them by 520 (the maximum possible score). Then multiply by 100 to get a percentage score. For example, if you scored 228 points, your puzzle performance is (228/520) x 100 = 43.8%.

Now, to obtain your Elo performance, the next step is to look it up on the table or graph shown below.

Performance(%)	15	20	25	30	35	40	45	50	55
Elo Rating	1051	1163	1275	1387	1499	1611	1722	1834	1946
Performance(%)	60	65	70	75	80	85	90	95	100
Elo Rating	2058	2170	2282	2393	2505	2617	2729	2841	2953

For example, if your puzzle performance was 43.8% as above, you can see that the rating levels for

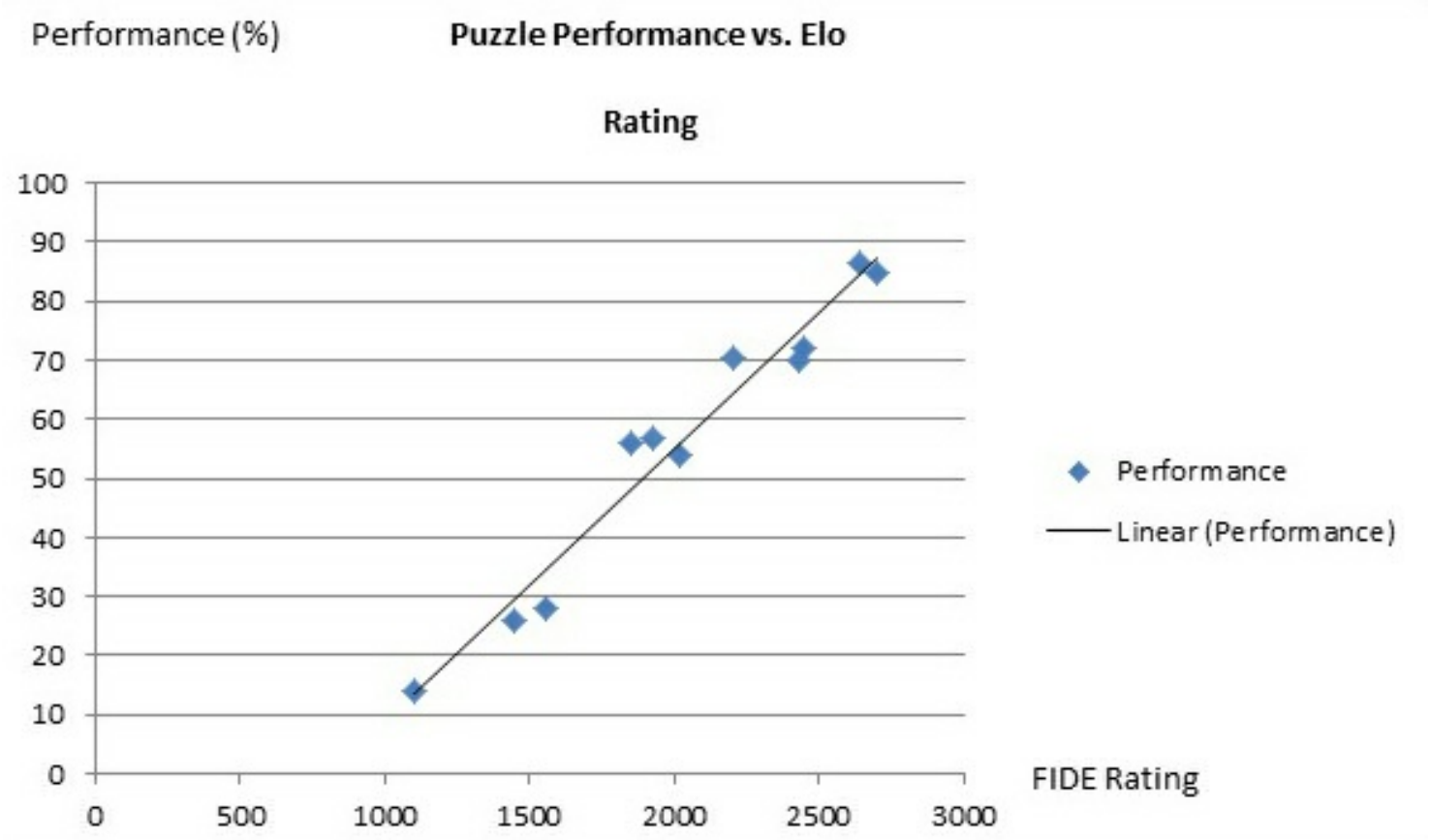
40% and 45% are given as 1611 and 1722 respectively, so your own rating performance would be around 1700.

Your estimated Elo performance should be accurate within plus or minus 150 points.

What kind of puzzle score should I expect?

Getting all 40 puzzles correct and giving the correct evaluation for each one is beyond human capability. Michael got a score of 87%. Julio Granda and other top grandmasters also scored between 80% and 90%. IMs and weaker GMs tend to score between 70% and 80%. Strong club players, with an Elo rating of around 2100, typically score 60%. Club players with an Elo rating below 1600 are likely to score below 40%.

The graph below shows how players score according to their strength.



How accurate is the graph?

The graph is pretty accurate at predicting your Elo performance, with a 90% prediction interval of plus or minus 150 Elo points. So for example, if your score predicts an Elo rating of 2000, you can be confident that your true Elo lies somewhere between 1850 and 2150. However, 10% of readers' results will diverge from their playing strength by more than 150 points.

For some of you, this might not seem very accurate – but it is. A player's Elo rating is not a fixed value that can be precisely measured, like weight or height. It is a statistical value representing your average strength, after having played a series of games. Players will often have a run of good results or bad tournaments, where they perform within an Elo range higher or lower than their rating depending on their form. Thus, the graph will give a very good indication of your playing strength.

Part III

Bonus Puzzles

Chapter 3.1

8 Bonus Puzzles and Solutions

Introduction by Michael Adams

This section consists of eight puzzles which were pruned from the main puzzle section after it became clear that they did not quite fit our requirements. In these positions, there either wasn't a clear solution, or many different candidate moves were of similar value. This meant that certain solutions became too complex from a scoring point of view. In others, the intended solution wasn't fully endorsed by the computer after we ran the puzzles under controlled conditions, normally because the assessments varied considerably at different search depths. Sometimes we had the scenario where many moves were assessed as 0.00, which was much too deep for me!

In puzzles that aren't clear-cut, humans and computers evaluate and think quite differently. This made it hard to implement the scoring system and to write up the solutions accurately and coherently, so it seemed better to present these puzzles in a separate section. I hope nonetheless that you will still be keen to try to gather your thoughts on these positions.

This is not part of the scoring section of the book. At first we thought about excluding these puzzles

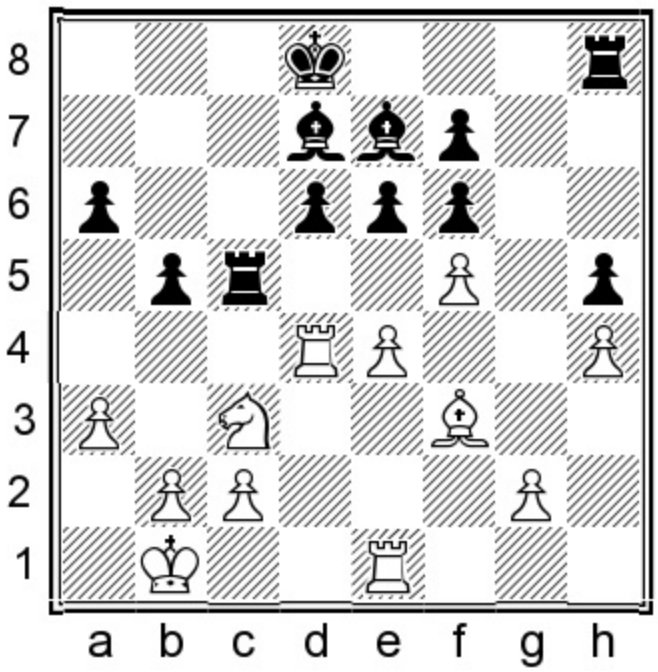
altogether but this would have been especially disappointing for me, as I found several of these positions fascinating, and enjoyed solving (or attempting to solve) them. I hope you will find these puzzles equally worthwhile, and I will do my best to compensate for the more subjective answers by offering my views in more detail on the best moves available.

We have also given indicative numerical answers for at least the three strongest moves as I judge them, as I thought some readers would find these interesting. However, in some cases where the computer saw many moves of equal value, I have awarded slightly higher scores to the moves which I personally considered more logical or practical. Sometimes that was because they kept more options, challenged the opponent, led to easier play, or were part of a clear, coherent plan that I could outline. Everyone has their own style and preferences, and others might reasonably prefer other choices, but I hope that the commentary will prove enlightening in any case.

Positions 41-44

The Fab Forties

Bonus Puzzle 41



White to play – Level 7

Show/Hide Solution

Bonus Puzzle 41 – To Take Or Not To Take?

Agnieszka Milewska
Elo 1677

00:30 *(Counts in Polish.)* I am checking the material balance.
01:40 Quite a tricky position.

02:45 I have a few options. There is a lot of tension in the centre. My first thoughts are always "how to attack".
My first thought is 1.e5.
03:30 Also 1.a4 looks quite interesting. But Black could simply ignore it.
04:00 I am thinking of moving the knight from c3. It is crucial that we use the knight in this position.
04:30 If I take the pawn on e6, he might recapture with either the bishop or the pawn.
(Thinks in silence for a while.)
07:00 1.♖g1 with the idea of 2.g4 looks interesting. But he will take my pawn on f5.
07:15 What about g4 immediately: 1.g4 hxg4 2.♗xg4 ♖xh4 3.fxe6 ♗xe6 (if 3...fxe6 4.♖g1)
07:30 I am also considering 1.♖g1. I am afraid that if I don't do anything precise, he will take my pawn on f5.
07:50 I am afraid to lose that pawn.
08:30 There is one more move I am considering: 1.♘e2 exf5 2.b4 Attacking the rook. 2...♖c4 3.♖xc4 bxc4 4.exf5 ♗xf5 5.♘d4
08:45 I still don't know which one to choose.
08:55 Yes, I will go for **1.♘e2**. That's my choice.

Evaluation: +1.0

Louise Head
Elo 2090

00:15 I'll try and take on e6: 1.fxe6 ♗xe6. Actually, I think 1...fxe6 might be better.
00:45 I am also looking at pawn sacs on e5. But that doesn't seem necessary at the moment.
01:20 1.g4 to pile more pressure onto e6 should Black take.
02:10 You also have to consider that the f5-pawn is being attacked. So maybe taking first on e6 is a good idea.
02:30 I think I need to move my knight to a better square.
02:45 I don't think it is worth worrying much about the f5-pawn as after exf5 his bishops will still be stuck for some time.
03:50 The knight isn't really doing a lot on c3. Although if I move it, there is 1...exf5. Whereas from c3 the knight can move to d5 if Black takes the pawn.
04:20 I am looking at ways to improve the pieces. I am also looking at the h5-pawn. It is quite weak and I would want to attack it with ♘e2 and ♘f4.
07:00 I am worried about the f-pawn. If I don't do anything quick I am going to lose it.
08:45 Let me see if I can afford to lose it: 1...exf5 2.♘d5 fxe4 Now, I shouldn't play 3.♘xe7 as that would help Black.
10:30 I need to find a good 'wasting' move, to allow Black to play 1...exf5 2.♘d5.
11:10 So moving my knight immediately doesn't help as it moves away from the d5-square.
11:55 I can't see a way to waste a move in a useful way. Could 1.a4 be an option?
13:20 The 'safe' move here is 1.fxe6. In a blitz game I would already have played that, for peace of

mind.
Although it does improve Black's position.
I am worried about playing a pawn down though.
14:00 Ah! What about 1.♘a2? This seems like a useful move.
15:45 1.♘a2 exf5 2.♘b4 attacking the a-pawn. Then if 2...a5 3.♘d3 attacking the rook. The rook moves away, somewhere back. Say 3...♖c7 4.♘f4. Here I am aiming at the h-pawn and it seems better for White.
17:05 I think after 1.♘a2 Black should take on f5.
(Thinks for a few minutes.)
24:00 If I had to play now I would play 1.♘a2. It offers chances to create weaknesses.
27:05 Yes, I'd play **1.♘a2**.

Evaluation: +0.6

Juan Reyes
Elo 2451

This seems to stem from a typical Sicilian position in which Black plays the move ...h5 to prevent White's bishop from getting there and attacking the f7-pawn.
01:00 Black can't play ...exf5 as that would leave the d5-square totally in White's control.
Black's rook on h8 is poorly placed, doomed to the protection of the h5-pawn.
The first question now is: how to improve our pieces? My rooks seem okay where they are.
03:00 My knight, I would like to place on d5 but can't. I have to wait for Black to take on f5 for that to happen.
03:30 The solution to this position lies probably on improving the position of the knight. At the moment, it's not doing much where it is.
I've seen similar positions where Karjakin played an e4-e5 move. But in this particular position 1.e5 doesn't seem to work. No.
05:00 The knight can travel to g3 and put pressure on the h5-pawn. 1.♘e2 with the idea of going to either f4 or g3 seems like a good plan.
So let's have a closer look: 1.♘e2 Black can't play 1...e5.
06:00 What about if he plays 1...exf5? The question now, is what to play?
I could play 2.♘g3, or even 2.♘f4, and all my pieces become very active.
08:00 2.♘f4 fxe4 or 2.♘g3 fxe4 3.♘xe4 attacking the rook and getting the pawn back with a good return on the investment. Practically attacking everything.
08:20 Yeah, White is better. I like 1.♘e2. I also retain two pawn islands versus three of Black.
1.♘e2

Evaluation: +0.8

Michael Adams
Elo 2701

00:30 Immediately, I would like to play 1.♘e2 here.
01:00 I don't want to take on e6 as it would open up the bishops.
02:15 Not so clear what Black's next move is, either.
1.a4 bxa4 2.♘xa4 could be a possibility, leaving Black with an additional weakness.
03:00 But I don't like my knight at the edge of the board. I'd rather take it to the kingside.
05:00 After 1.♘e2 there is the threat of 2.♘g3, which doesn't leave Black with many options.
And if 1...exf5 there are many options for White, including 2.♘g3.
05:50 If 1.♘e2 d5? Black is just dropping a pawn.
08:30 1.♘e2 ♖e5 could be an option. Then maybe simply 2.♖ed1.
I don't like it very much for Black.
10:00 I think the best move is **1.♘e2**.

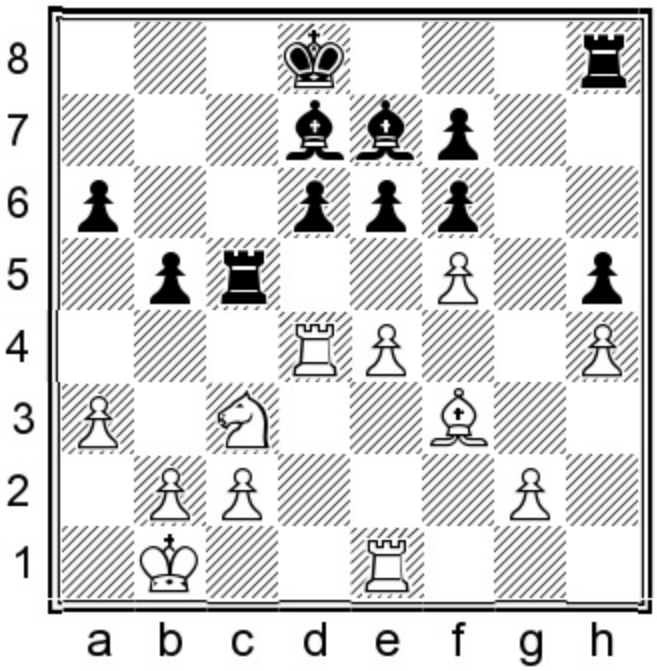
Evaluation: +0.7

Deeper Analysis by Michael Adams

Inna Agrest – Li Chao

Internet (rapid) 2019

1.e4 c5 2.♘f3 ♘c6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 d6 6.♗g5 e6 7.f4 ♗e7 8.♕d2 a6 9.0-0-0 ♗d7 10.♗e2 b5 11.♗f3 ♖c8 12.♔b1 ♕b6 13.♖he1 h6 14.♗xf6 gxf6 15.f5 ♕xd4 16.♕xd4 ♘xd4 17.♖xd4 h5 18.h4 ♖c5 19.a3 ♔d8



A position where resisting the opportunity to release the tension is the key theme. During a game, particularly a fast-paced one like this, it's tempting to make an exchange of pawns just to make life easier. It limits the annoyance of calculating the possibility of Black capturing on f5, but at much too high a cost. Realistically there are very few situations in which taking on f5 will work out well for Black, and it gives Black a lot more freedom, space and options.

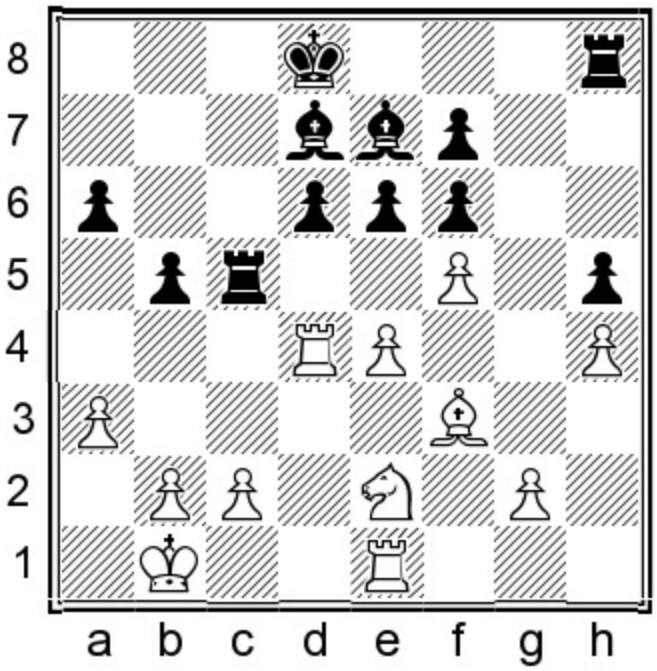
20.fxe6?

This strategical error was played by quite a strong player, admittedly in a game with a quick time limit. The flaws with releasing the clamp on Black's position are the undoubling of his pawns and the improvement of his structure, as well as giving the black bishops more scope. It also improves Black's coordination more generally, as the pawn on f5 was cutting the board in two; for instance, the h5-pawn is now also defended laterally. The important option for Black to play ...f5 to activate the dark-squared bishop, allowing it to target the pawn on h4, and later to move that piece to f6 as occurred in the game, is also introduced. There are several better moves that are sensible ways to improve White's position. I will focus on four good ideas.

20.g4? hxg4 21.♗xg4 ♖xh4 is definitely not one of them.

20.♘e2

This commonly proposed move is an instinctive reaction which I initially felt was best – the kind of move many strong players would automatically play in a fast game. The knight heads towards g3, or f4 as long as it doesn't allow a fork with ...e5.



20...exf5

20...♖g8!? is an interesting idea, preventing ♘g3. However, the tactics are not unfavourable for White after: 21.♗xh5 ♖xg2 22.♗xf7 exf5 23.♘f4! ♖g4 (23...♖gxc2 24.♖g1! is nasty: 24...♖h2 25.♖g8† ♔c7 26.♘d5†+–) 24.♘d5 fxe4 (24...♖xh4? 25.♘xe7) 25.♖dxe4 ♖xe4 26.♖xe4 ♗c6 27.♖d4 White is a little better with the strong h-pawn.

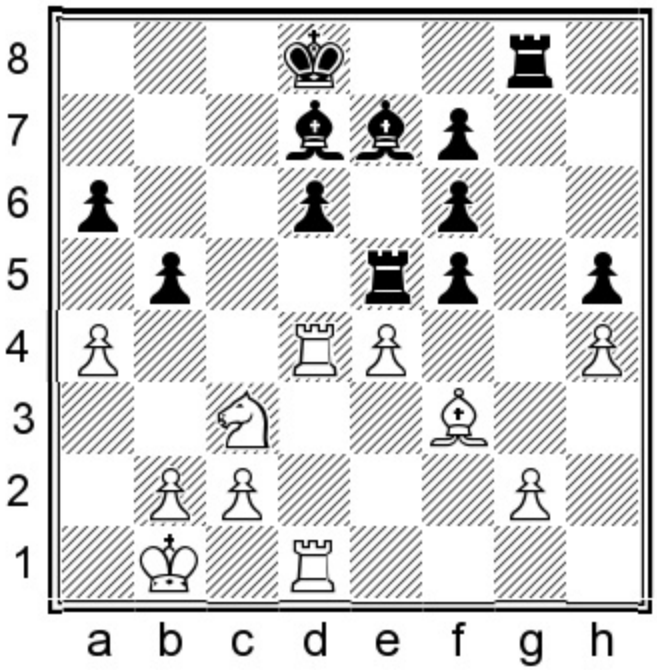
21.♘c3

The fact that White retracts her last move suggests that 20.♘e2 might not be the most precise. White is still doing quite well though.

21...♖e5 22.♖ed1 ♖g8 23.a4!?

23.exf5 ♗xf5 24.♘d5 ♖g3 followed by ...♗g4 seems okay for Black.

Black's position should be defensible, although it would be challenging in practice with such a shattered structure.



23...bxa4 24.exf5 a5

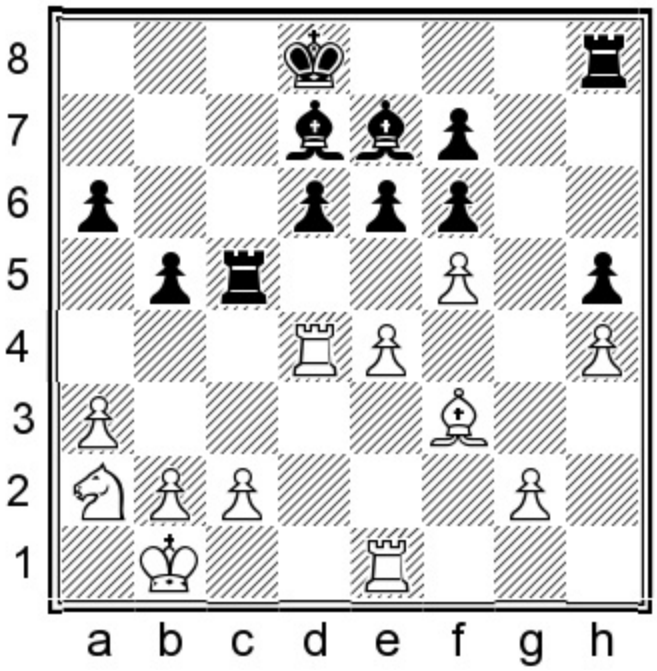
24...a3 25.♖b4! would be troublesome.

25.♘xa4 ♗xf5 26.♘b6

Black can hold, but the position is much easier for White to play.

20.♘a2!?

This more imaginative knight move is perhaps more challenging than the option analysed above. The fact that a future ♘b4 will gain time by targeting the pawn on a6 is a considerable positive.



20...exf5

White shouldn't be worried by the small material loss, as all her pieces become active and Black will be left with five scraggly pawn islands, defended by passive pieces.

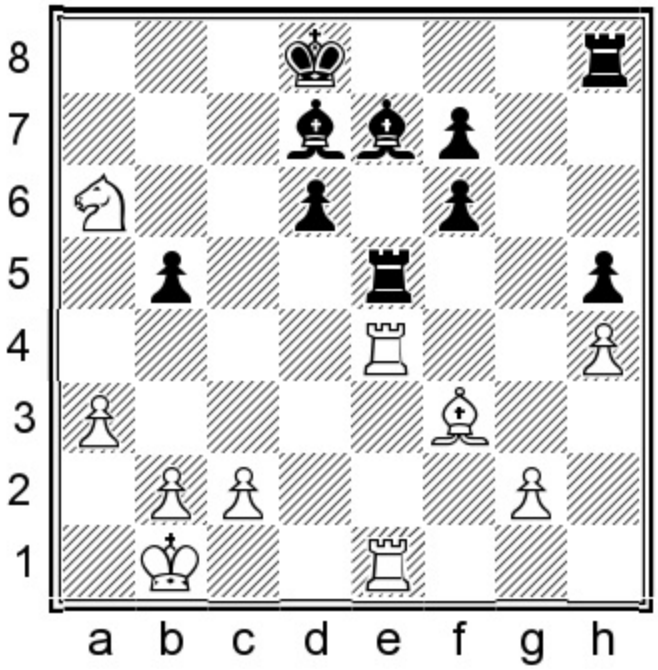
20...a5 is well met by: 21.♘c1! Denied access to b4, White uses the threat of ♘b3 to keep up the pace. 21...exf5 (21...a4 22.♘d3 ♖c4 23.♖xc4 bxc4 24.♘f4±) 22.♘b3 ♖e5 23.♘xa5±

21.♘b4!?

21.♘c3 has been analysed via 20.♘e2 above.

The additional option is certainly viable as well.

21...fxe4 22.♖dxe4 ♖e5 23.♘xa6



23...♖e6!

An important resource, preparing ...f5 to activate the dark-squared bishop. Nevertheless, White keeps the upper hand after:

24.♘b8! f5 25.♖4e2 ♗xh4 26.♖h1±

Although the above two options are quite promising for White, I think it's even more accurate to leave the knight on c3 for the moment, thus discouraging exf5 and improving other aspects of White's position.

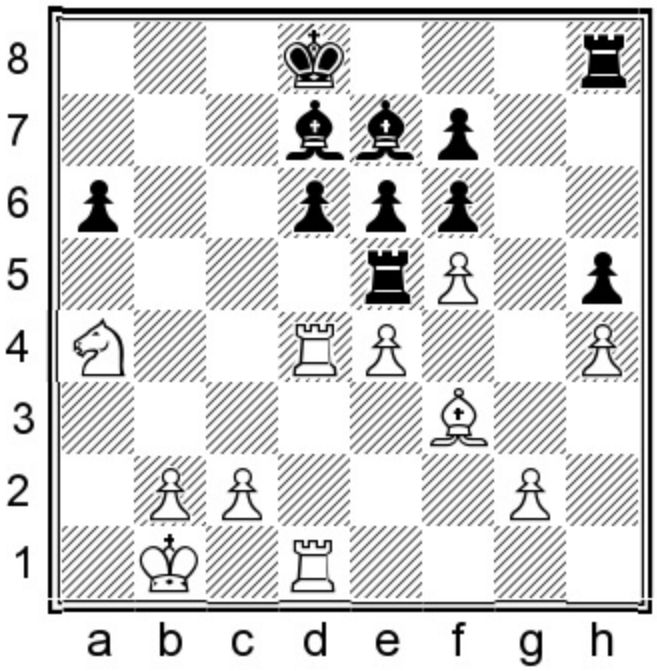
20.a4!?

This aims to give Black yet another weakness to worry about. In addition to lumbering Black with an additional liability to defend, it also opens up some other routes for White's pieces.

20...bxa4 21.♘xa4

I considered this, but rejected it due to concerns that the knight could be caught out of the action. However, it actually continues to find lots of good squares, and the fact that White's rook has more options available along the 4th rank is also handy.

21...♖e5 22.♖ed1



22...exf5

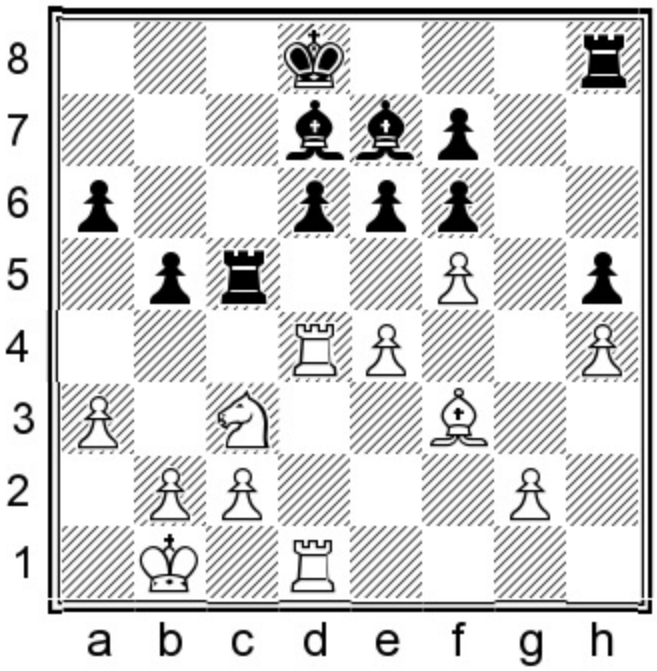
22...♔c7 23.♖c4† ♔b8 24.♘b6! shows another possible route for the knight to get back into play.

24...♗b5 25.♖c3 With ♘c4 to follow.

23.exf5 ♖xf5 24.♘c3

White has an excellent position, with Black lumbered with a lot of weaklings and ♖b4 and ♘d5 ideas available.

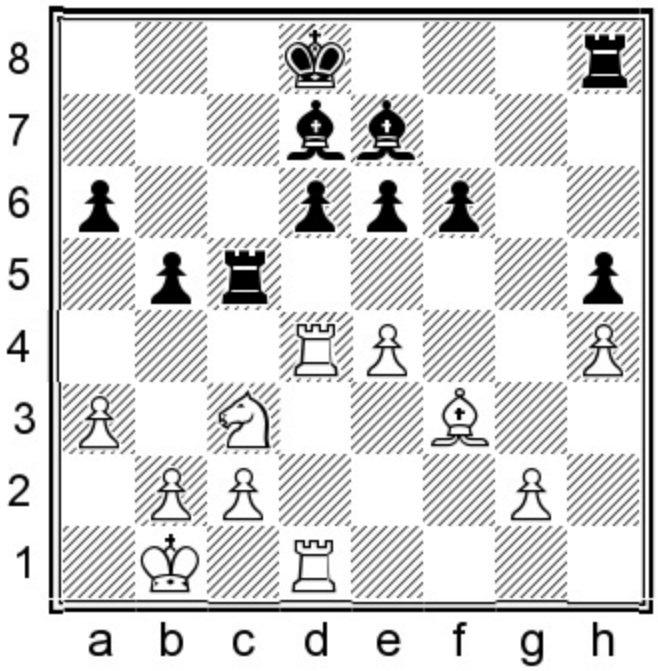
In retrospect, I think the best of option of all is the high-class waiting move: 20.♖ed1!



Given that White has a few different options and Black doesn't have many useful moves, there is a strong case for waiting to decide whether to swing the knight left or right, or probe with a4. This flexible move also highlights the fact that Black doesn't have a clear next move to make.

Prophylactically, the rook move is useful in several variations where Black plays ...♖e5, after which the opposition of the rooks on the e-file is inconvenient for White. One instance occurs in the 20.a4 line above, where White has to take time out for ♖ed1 at a less convenient moment. 20...a5 21.♘e2 exf5 22.♘g3 remains very unpleasant for Black.

20...fxe6 21.♖ed1



21...♔c7

Overcautious.

21...f5! immediately was best. Black needs to open up his bishops as soon as possible.

22.♘e2 f5

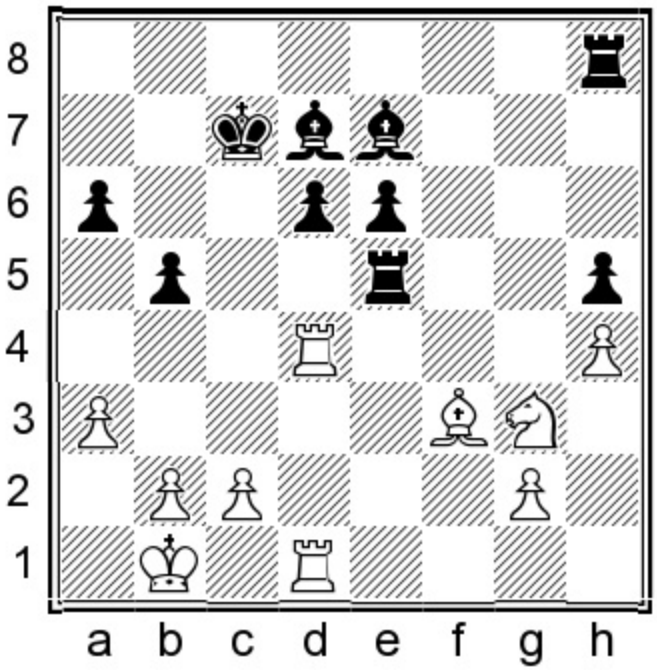
22...♗e8!? 23.♘f4 ♗f7 covers the pawn on h5.

23.exf5

Both players overlooked 23.b4! ♖e5 24.♘f4 when the black rook is embarrassed.

23...♖xf5 24.♘g3 ♖e5∓

Black has achieved his aims, having more active pieces and a better structure, and went on to win.



25.c4 ♗c6

25...♖c5! 26.cxb5 axb5 27.♘e4 ♖c4∓

26.♗xc6 ♔xc6 27.♘e4 ♖d8 28.g3 bxc4 29.♖xc4† ♔b6 30.♖dc1 ♖d7 31.♘f2 ♖e3 32.♘e4 d5 33.♖c6† ♔b7 34.♘d2 ♗d6 35.♘f1 ♖f3 36.♖6c3 ♖df7 37.♘d2 ♖xc3 38.♖xc3 ♖f2 39.♘b3 ♗e5 40.♖c2 ♖xc2 41.♔xc2 ♔c6 42.g4 hxg4 43.h5 g3 44.♘d2 g2 45.♘f3 ♗h2 46.h6 g1=♕ 47.♘xg1 ♗xg1 48.♔d3 ♗h2 49.♔d4 ♔d6

0–1

Indicative Scoring for Puzzle 41

Best Move	Score	Michael's Comments
1.♖ed1	10	The most flexible. A powerful improving move, keeping all options open and asking Black to show his hand.
1.a4	9	Undermining the queenside, putting another dent in Black's ugly structure.
1.♘a2	8	A surprisingly promising route for the knight, aiming to land on b4 with tempo, and maybe d3 next.
1.♘e2	8	My choice. The most natural, but a little stereotyped here, if you think deeply. (Lots of other moves keep a large advantage.)
1.fxe6?	1	A bad error, considerably helping Black – shows a lack of feel for the position. Think about who benefits from this exchange.

Puzzle Commentary by Phil

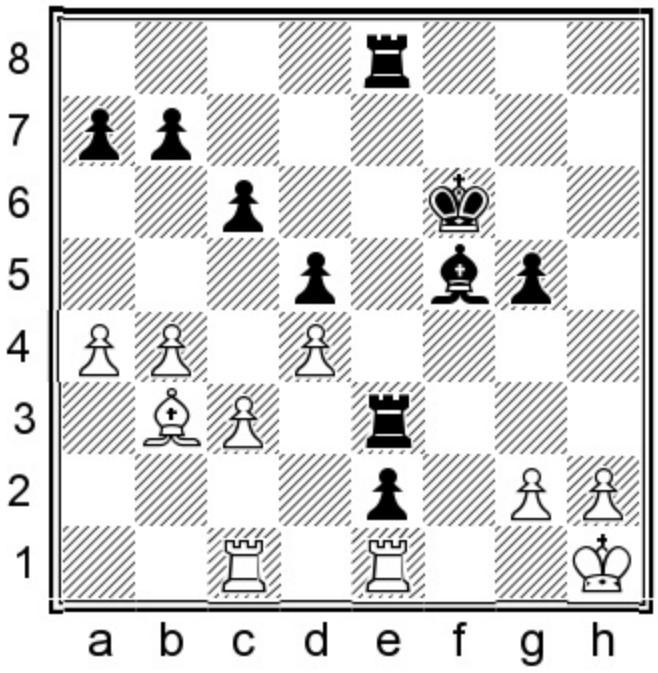
When I watched this game online, the commentators immediately condemned White's choice of 1.fxe6. From a materialistic point of view, analysing this move makes some sense, as White's f5-pawn is being attacked twice. However, all strong grandmasters will not even give this move a second thought, just on principle.

Adams Insight

When you are thinking about making a move that releases the tension, ask whether you need to do so immediately. Does it benefit you or your opponent? A lot of positions are unnecessarily weakened by rushing to clarify the position too soon, and such errors often prove costly in practice. The game continuation shows how much dynamic potential Black's position gained from being gifted a more flexible pawn structure. The additional possibility of ...f6-f5 allowed the bishop pair to emerge, so the fxe6 exchange was the first step in a chain of events that eventually allowed the formerly miserable bishop on e7 to dominate the board.

It was interesting that several players mentioned 1.e5 as an idea here, although it is clearly not good in this position. Juan Reyes mentioned a Karjakin game with this idea that he recalled. I suspect he was referring to the key last round game of the 2016 Candidates, in which Sergey defeated Fabiano Caruana, although the situation on the board was quite different there.

Bonus Puzzle 42



Black to play – Level 6

Show/Hide Solution

Bonus Puzzle 42 – Spoilt For Choice

Leo Hurtado
Elo 1345

White has an extra pawn. Oh no, he hasn't – we have the same material.
01:00 My king is better placed. The pawn on e2 is close to queening.
01:30 My queenside pawns look safe. My two rooks are defending well the pawn on e2. I can take my rook on e8 to a more active position.
03:00 Hmmm. I can move my rook on e8 to e4 and then to f4 and then to f1. But he takes me twice and I lose the pawn. Also on e4 my rook is obstructing my bishop. So forget that.
05:00 1...g4 looks good, but after White plays g3 my pawn on g4 just looks silly.
07:00 1...♖d3, then ♖d2 and ♖b2 attacking the bishop looks good. But it is a long plan and not sure it works.
08:00 Ah! Another idea: pawn to c5, and if he takes with the d-pawn I can play ...d4! and he can't take. This looks quite a good idea.
08:15 The problem is that he can take with the b-pawn and then I am busted.
09:30 Another idea is 1...♗d3. Followed up by ...♗c4 exchanging bishops. Or just leave it there supporting the pawn.
(Thinks while humming a rap song.)
Wait! I can play 1...g4 after all. It is an attacking move. And if he plays 2.g3 I have a nice check with 2...♗e4†.
11:00 Yes. I will play **1...g4**.

Evaluation: Between –0.7 and –1.2.
If I have to choose, I'd say –0.7.

Andrew McCumiskey
Elo 2017

Completely even in material. My e2-pawn and doubled rooks behind it look strong.
00:35 Only objection is my bishop, which cannot support the queening square.
So what to do? He can't do much. So I have enough time to do stuff myself.
01:30 I need to get a rook onto f1 somehow. But that is not easy.
03:00 We need a plan. Hmmm. My focus in on f1. Trying to get a rook there. The other option is d1, but that square is guarded by his bishop.
03:30 To be honest, he can shop around with his king if he wants to, but he is getting nowhere.
04:00 I am looking at starting with a move like 1...♖d3. He can't play 2.♗c2? because of 2...♖xc3.
04:30 So 1...♖d3 with the idea of bringing the other rook to e3, putting pressure on c3, looks strong.
04:45 He can't do much against it, can he?
05:15 This is good for me to be honest.

Yeah. I like 1...♖d3. Gives me loads of threats. He can't move his rook. Not 2.♖c2. He can't play 2.c4. He could play 2.♗a2 but 2...♖8e3 is won for Black.

1...♖d3

Evaluation: >–3.0

Akshaya Kalaiyalahan
Elo 2149

01:00 I am looking at doing something on the kingside. Looking at stuff like ...♗g4 and ...♖h8. But nothing convincing yet.
03:00 Looking at 1...g4 as well.
03:30 Debating whether I should play for a mating attack on the kingside, or playing it safe.
I am thinking of 1...g4 2.♔g1 and then something like 2...♔g5, but still haven't decided on it yet.
08:50 I am looking at 1...♖8e4 at the moment.
I decided to play 1...♖8e4. If White plays 2.♔g1, I have 2...♖f4 to stop the white king reaching f2, and then
10:30 I can play ...♗d3 and ...♖f1†, and bring my king closer to the centre.

1...♖8e4

Evaluation: –1.5

Juan Reyes
Elo 2451

00:15 Black plays 1...g4 with the idea of 2...g3, and if White takes on g3 then I play 3...♗g4, firmly anchoring my bishop on g4, defending the pawn on e2 and completely paralysing White.
After 1...g4 White cannot play 2.g3 himself because of 2...♗e4†, followed by ...♗f3.
01:00 The idea of playing 2...g3 is really strong. And if after 2...g3 White plays 3.h3, I play 3...♔g5 and ...♔f4, and Black's advantage is overwhelming.
1...♗d3 is also strong. With the idea of preventing any counterplay with c4.
Oh, I just realized he can't play 2.c4 anyway. So there is no need for this prophylactic move.
02:00 White cannot play 2.♗c2 either as the pawn on c3 is hanging.
So, if I play 1...g4, White has 2.♔g1, but then comes 2...g3 anyway. And if 3.hxg3 my king can get to g5 and leave White completely paralysed. He cannot move any of his rooks. And the bishop doesn't have any good squares to go to either.
03:00 After 1...g4 White is in zugzwang.
04:30 1...g4

Evaluation: Black is winning (between –2 and –3)

Michael Adams
Elo 2701

01:00 First impression is that White is very passive. It is hard to see White's next move. Possibly ♔g1 and ♔f2.
01:30 1...♖d3 with the idea of ...♖d2. If 2.♔g1 ♖d2, and I am threatening 3...♖b2 trapping the bishop.
02:00 Maybe also something like 1...g4 and ...g3 for Black.
02:30 1...♗d3 followed by ...♖f8 and moving the king for ...♖f1†.
03:45 If I went 1...♖d3: 2.♖c2 ♖d1 is winning; if 2.♗c2 ♖xc3 is winning.
04:30 So, after 1...♖d3, what else can he play? 2.♗a2, or 2.♔g1 maybe?
05:10 1...♖d3 2.♔g1 ♖8e3 3.♔f2 ♖xc3
07:15 I am tempted by many other quiet moves, but 1...♖d3 seems to be the most forcing.
The move is 1...♖d3 – it looks a pretty good move for Black.
11:00 1...♖d3 2.♗a2 ♖d2 3.♗b1 ♗xb1 4.♖xb1 ♔f5, and bringing my king to d3 should be winning.

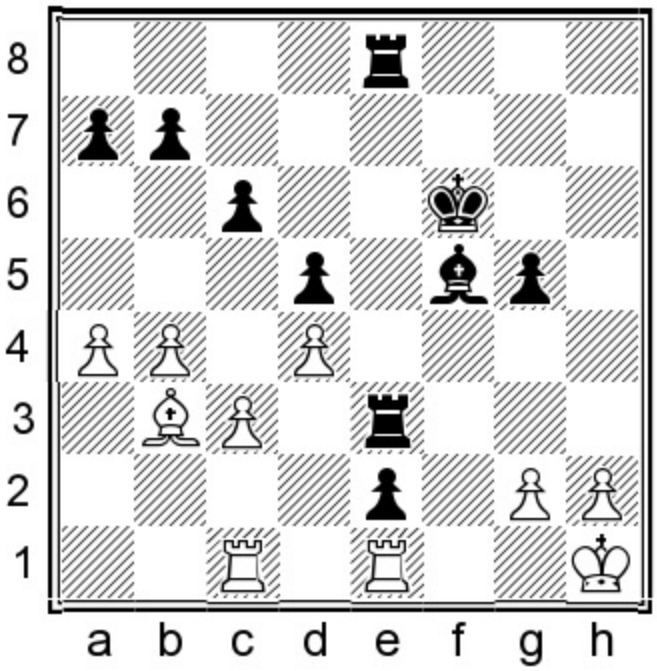
1...♖d3

Evaluation: –2.5

Detailed Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



The passed pawn isn't going to promote soon, but it paralyses White's position. Black needs to make a plan to push White over the edge, and there are quite a few good ideas. Black's position is so strong that almost every move is decent, but to win the game he will need to find a plan to seal the deal.

1...♖d3!

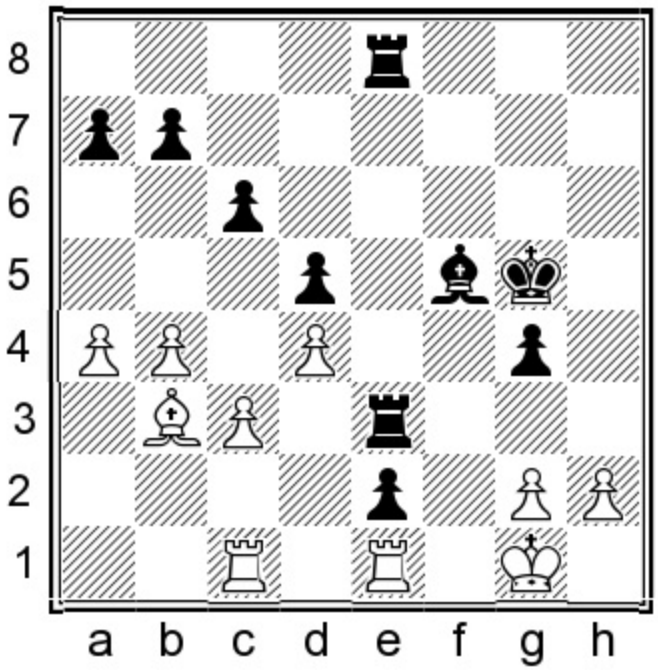
The most direct option is a good way to proceed. Black combines threats to win the c3-pawn with the idea of transferring the rook to d2, where it will defend the passed pawn and harass the white bishop.

Black has a number of good options which maintain the position and gradually creep forward.

1...♗e4?! 2.♔g1 doesn't achieve much, Black now needs to switch plans.

A logical continuation is:
1...g4 2.♔g1 ♔g5

2...g3!? 3.hxg3 ♔g5 4.♔f2 ♗g4 is another promising way to secure the e2-pawn before repurposing the rooks.



3.♔f2 ♗d3 4.♗c2 ♗c4

Black keeps an iron grip. Once the bishop settles on this diagonal, the e2-pawn is handily overprotected and Black can proceed to infiltrate with a rook to f1.

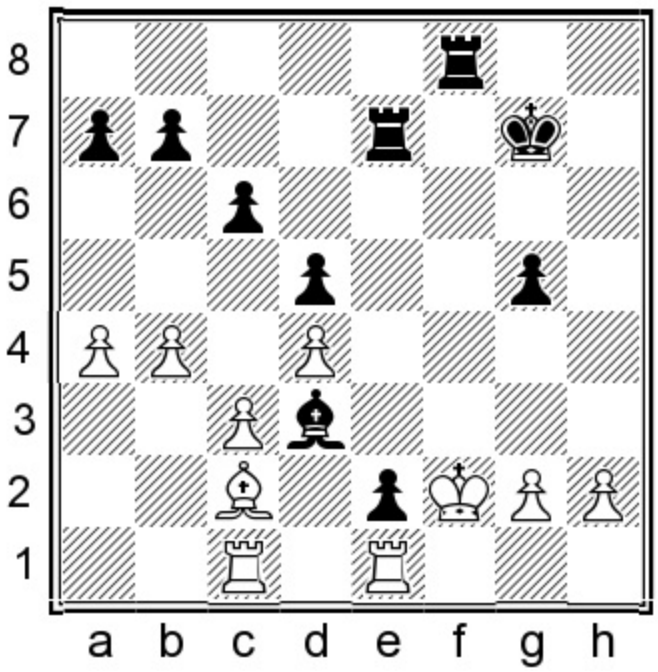
1...♗d3 2.♔g1 ♖f8

This is a related idea. Black securely defends the pawn on e2 before taking control of the f-line.

3.♔f2

3.♗c2 ♗c4 maintains control.

3...♖e7 4.♗c2 ♔g7†



5.♔g3

5.♔g1 ♖f1† 6.♖xf1 exf1=♕† 7.♖xf1 ♗xc2–+

5...♖e3† 6.♔g4 ♔h6!

White will pay the price for leading with his king.

7.g3

7.♗xd3 ♖f4 is mate.

7...♖e4† 8.♔h3 ♖f2 9.♗xd3 g4† 10.♔h4 ♖xh2#

There is also:

1...♖8e4 2.♔g1

2.♗c2 ♖f4 3.♗xf5 ♔xf5 and the king will penetrate to d3.

2...♖f4

This is another logical way to corral the white king.

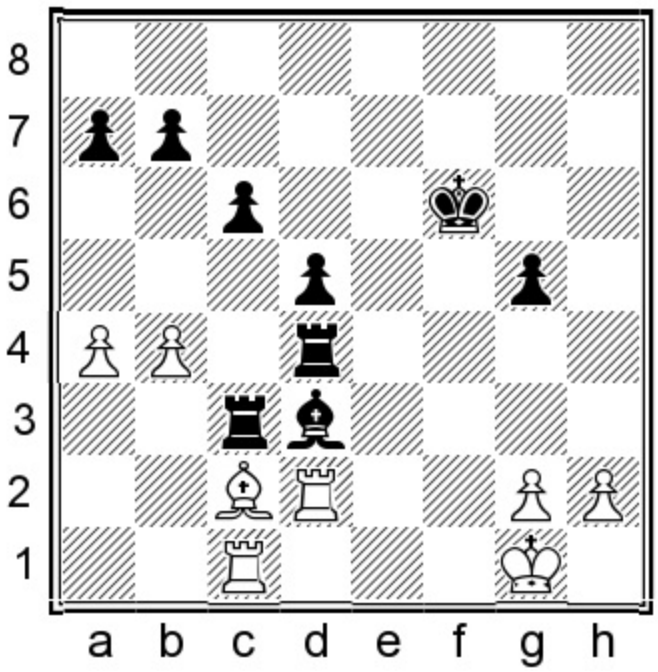
3.♗c2

3.a5 ♗d3–+

3...♖xc3 4.♖xe2

4.♗xf5 ♖xc1 5.♖xc1 ♔xf5 wins.

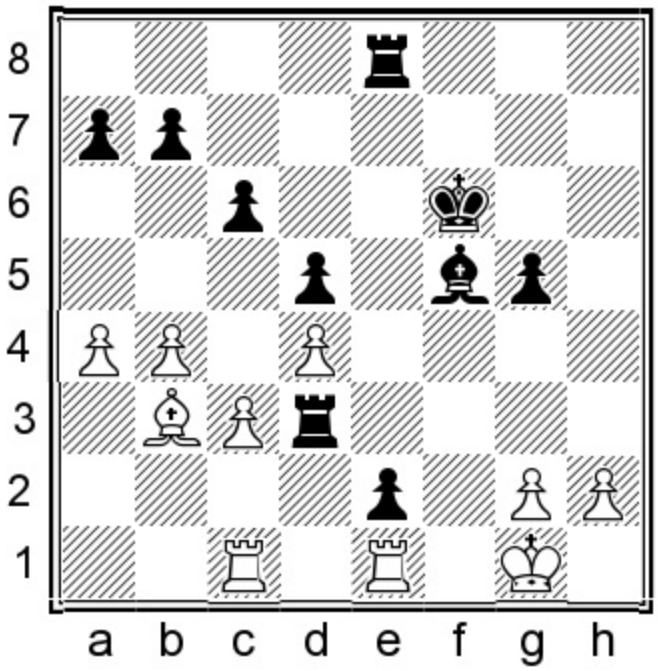
4...♗d3 5.♖d2 ♖xd4



6.♖cd1 ♗xc2 7.♖xd4 ♗xd1 8.♖xd1 ♖c4–+

The rook ending should be an easy conversion.

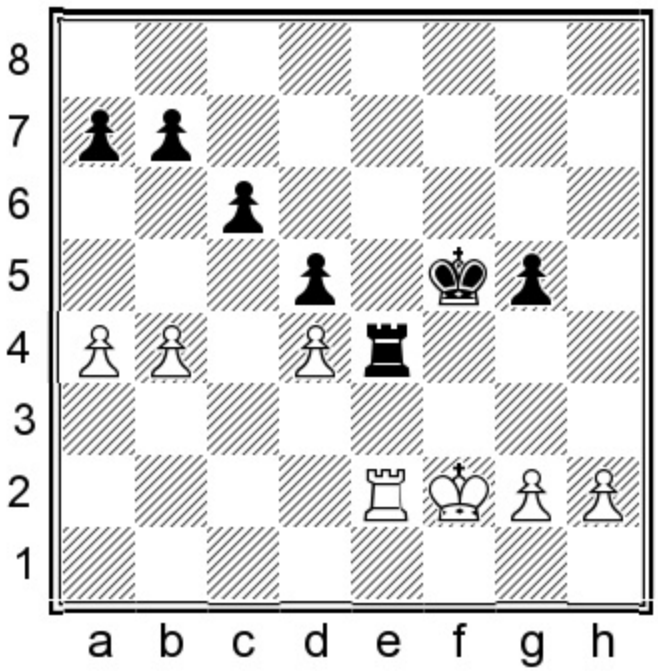
2.♔g1



2...♖d2!

This would be my choice, keeping control and forcing White's pieces into even greater passivity.

2...♖ee3!? also works: 3.♔f2 ♖xc3 4.♗c2 ♖e7 5.♗xf5 ♖xc1 6.♖xc1 ♔xf5 7.♖e1 ♖e4 8.♖xe2

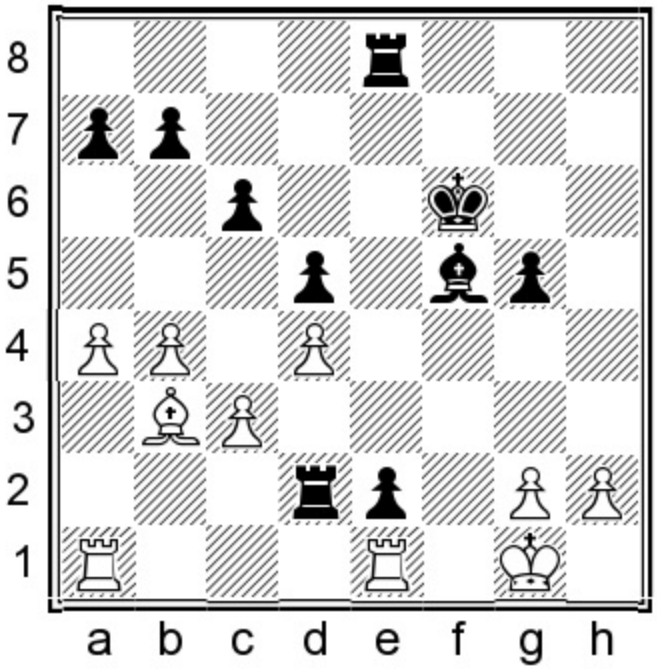


8...♖xe2†! The cleanest. (8...♖xd4 is comfortably winning, but still a relative success for White, who can play some more moves with the rook and hope for a miracle.) 9.♔xe2 ♔e4 10.h3 (10.g3 g4) 10...♔xd4 11.g3 ♔e4–+ The pawn ending is easy.

3.♖a1

White's bishop is running short of squares, as demonstrated by the line 3.a5 ♖b2 4.♗a4 ♖a2

5.♗b3 ♖a3, when 6.♗c2 ♖xc3 7.♗xf5 ♖xc1 is the end of the road.



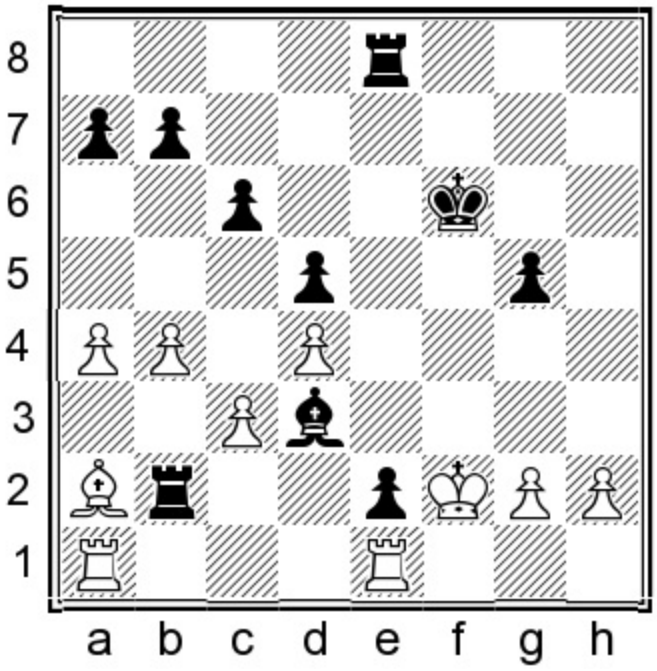
3...♖b2 4.♗a2

White's pieces are even more passive than in the miserable starting position.

4.♖a3 ♗d3 5.♔f2 ♔g6 6.a5 ♖f8† 7.♔e3 ♖f1 8.♖aa1 ♗b5–+

4...♗d3 5.♔f2

Now it's time to activate the black king.



5...♔g6

5...♔f5!? 6.♗b1 ♔e4–+ is another option which I rather like, as all of Black's pieces protect the

pride of his position: the pawn on e2.

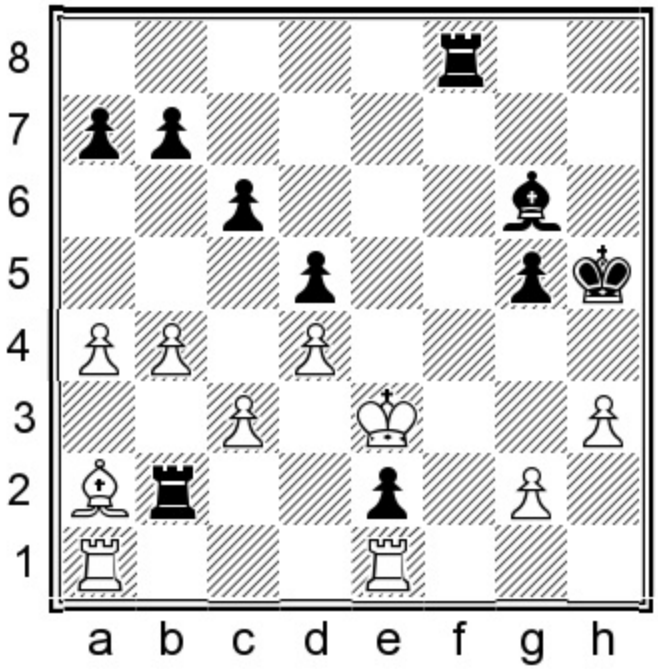
6.h3

If 6.♗b1 then 6...♖f8†! is the most precise, intending 7.♔e3 ♗xb1 8.♖axb1 ♖xb1 9.♖xb1 ♖f1 and wins.

6...♔h5 7.♔f3

7.♔g3 ♖f8 8.♗b1 (8.♔h2 ♖f1–+) 8...♗xb1 9.♖axb1 ♖xb1 10.♖xb1 ♖f1 wins.

7...♖f8† 8.♔e3 ♗g6



9.b5

9.♖xe2 ♖e8† picks up the rook.

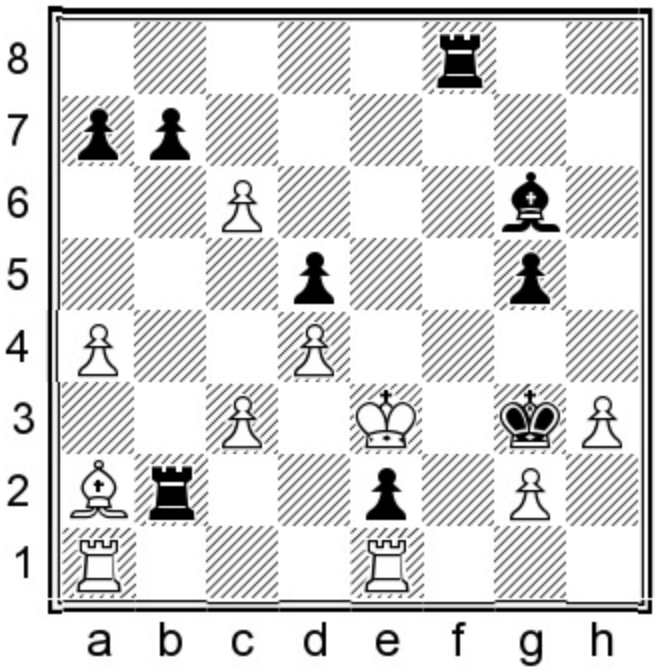
9...♔h4

Preparing a mating net.

10.bxc6 ♔g3!?

10...bxc6–+ is fine of course.

Black has used the total control of the position to allow his king to saunter up the board, and now mate is threatened. The only way to postpone it is:



11.♗xd5 ♖e8† 12.♗e4 ♗xe4

Black wins easily.

Indicative Scoring for Puzzle 42

Best Move	Score	Michael's Comments
1...♖d3	10	The most direct, aiming to target the pawn on c3 or embarrass White's miserable bishop.
1...♗d3	9	Overprotection! The pawn on e2 wasn't lacking support, but this rubs it in. Black plans to transfer a rook to f1.
1...g4	9	Gaining yet more space, and preparing to improve the king with ...♔g5.
1...♖8e4	8	The rook can sidestep to f4 if required, preventing White from bringing his king to help.

Puzzle Commentary by Phil

The computer will show you half a dozen moves with a score greater than –3. However, it's a different matter when you are sitting at the board, knowing that you are better, but still faced with the challenge of finding a killing sequence.

The first GM to whom I showed this position was my friend Eltaj Safarli. It took him literally less than thirty seconds to come up with 1...♖d3. The idea is simply to play ...♖d2, ...♖b2 and ...♖xb3! The other two GMs I tested the position with concurred.

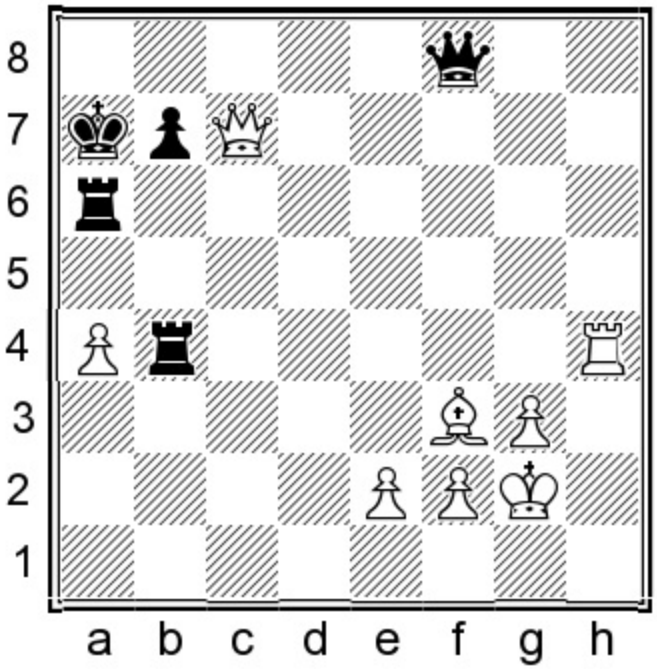
The reason why this puzzle is in the bonus section is because the computer finds many strong alternatives to 1...♖d3. However, from a human perspective, once you see the idea of trapping the misplaced bishop, it seems like the direct way to clinch the win.

Adams Insight

Black needs to settle on a winning plan, and there are a few front runners. 1...♖d3! is my favourite, planning either to go after the weak c3-pawn or, as I preferred, to embarrass the unfortunately placed bishop on b3 by means of ...♖d2-b2, improving Black's rook and forcing White to make further concessions.

A good alternative is planting the bishop on d3 instead, securing the pawn on e2 and preparing to force matters by transferring a rook to f1 in due course. A third option is to nudge the g-pawn forward, gaining more space and giving the king a good square on g5. Here too, the idea is to maintain control and eventually land a rook on f1.

Bonus Puzzle 43



White to play – Level 7

Show/Hide Solution

Bonus Puzzle 43 – Wait

Fermin Rodriguez
Elo 1544

Is it White to play? I am going to give you checkmate.
00:30 Ah. No, wait. There is no checkmate, but White is clearly better.
01:00 I can even play rook takes rook here. Even that wins. 1.♖xb4 ♕xb4 and I still have three lovely passed pawns.
01:15 It is impossible for White to lose this.
01:45 The strongest move here has to be 1.♖h7.
02:00 1.♖h7 I am threatening 2.♗xb7.
04:00 White's first move seems easy enough.
04:15 By the way, do you know there is a tournament in Prague in December?
04:30 I am not going to over-think this. **1.♖h7**

Evaluation: I see myself winning. (+2.0)

Philip Hurtado
Elo 1924

00:05 White seems to have a very active position.
00:15 In fact, he appears to have many extra pawns, enough to be winning.
00:20 I am looking at ideas involving the attack on the b7-pawn, and particularly ideas involving 1.♖h7.
00:45 I am looking at using brute force to win: 1.♖h7 ♖ab6 (to defend the pawn on b7) 2.a5 ♖6b5 and 3.a6.
01:45 I have to analyse this though. After 3.a6 ♔xa6 I feel White is winning, but can't find the continuation at the moment.
02:45 I am thinking of moving my pawn to a5 immediately, as Black doesn't have any threats.
03:00 Oh, no! He can take my rook on h4 and spoil my pawns.
Let me try 1.♖h7 again. I am sure I am missing something.
04:45 I mean, I am sure Black is lost. Even in the worst case scenario, I will be able to advance my pawns forward, and I am sure I am winning.
05:00 But it feels there must be a more forcing solution here.
06:30 The truth is, after 1.♖h7 ♖ab6, Black is completely tied down. I am sure White is clearly winning here.
06:40 In a game, I would have already played **1.♖h7**.

Evaluation: +2.5

Jesús Cao
Elo 2060

00:05 Is the position correct? It seems too easy.
00:15 1.♖h7 looks absolutely killing.
01:15 1.♖d4 with the idea of 2.♖d8 also looks very strong.
01:30 1.♖h7 must be winning.
02:30 1.♖h7 ♖ab6, but this should win for White. Even if everything gets exchanged, the extra pawns should win.
03:40 1.♖d4 is really, really strong. Whatever Black does, I am playing 2.♖d8.
05:45 1.♖d4 is even stronger than 1.♖h7.
06:00 1.♖d4 ♖axa4 2.♖d8 and now if he moves his queen I have 3.♕b8† followed by 4.♕xb7† with devastating effects.
I play **1.♖d4**.

Evaluation: +6.0

Detailed Analysis by Michael Adams

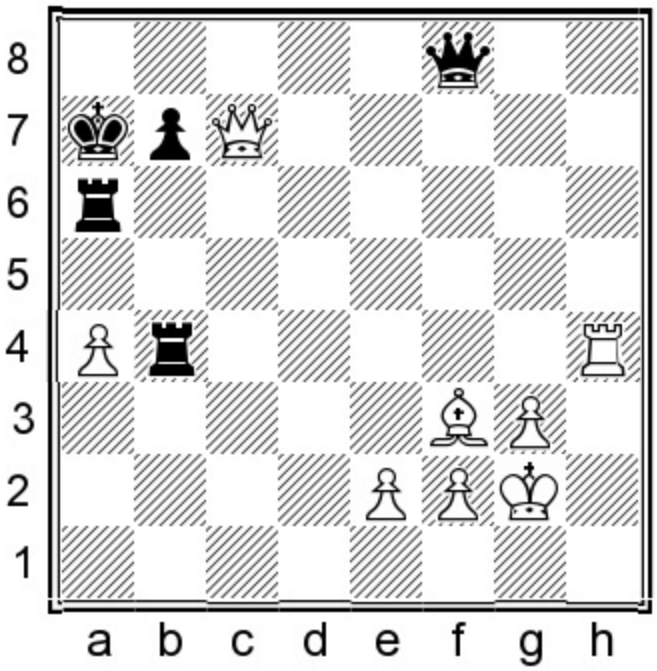
Michael Adams – S.P. Sethuraman

Gibraltar 2017

1.c4 e5 2.g3 c6 3.d4 e4 4.♘c3 d5 5.♗g2 ♘f6 6.cxd5 cxd5 7.♗g5 ♘bd7 8.♕b3 ♗d6 9.♘h3 h6 10.♗f4 ♘b6 11.♗e5 ♘g4 12.♗xg7 ♖g8 13.♗e5 ♘xe5 14.dxe5 ♗xe5 15.♖d1 ♗e6 16.♘xe4 ♕c8 17.♘f4 dxe4 18.♕b5† ♘d7 19.♖xd7

You will recognize this position from Puzzle 17 on page 149!

19...♕xd7 20.♕xe5 0-0-0 21.0-0 ♕c7 22.♕xe4 ♔b8 23.♘xe6 fxe6 24.♕xe6 h5 25.♕f6 ♖df8 26.♕h4 ♖f5 27.♗f3 ♖d8 28.♔g2 ♖c5 29.b4 ♖c4 30.♕xh5 ♖xb4 31.♕g5 ♕d6 32.♖c1 a6 33.h4 ♖b5 34.♕g7 ♖d7 35.♕h8† ♖d8 36.♕c3 a5 37.h5 a4 38.h6 ♕xh6 39.♕c7† ♔a7 40.♖c4 ♖d6 41.♖xa4† ♖a6 42.♖h4 ♕f8 43.a4 ♖b4



There are in fact several ways to win, and with White's king so safe there is little chance of something going wrong. Still, winning as quickly as possible should always be a priority, and there is a purely tactical opportunity to do just that.

44.♖f4!

The most practical and simplest way to instantly end the game, by overloading Black's pieces both laterally and vertically, thus ensuring a huge material gain. This move is not always spotted, as people are quickly drawn towards the admittedly good possibility of 1.♖h7, which will be discussed shortly.

1–0

Black resigned due to the following simple lines: 44...♖xf4 45.♕xb7 is mate; 44...♕d6 45.♕xd6 ♖xd6 46.♖xb4 wins a rook; and finally, 44...♖f6 45.♖xf6 ♕xf6 hopes for a queen fork on c5, when the black queen goes to b6 to keep the game going, but 46.♕a5† thwarts that idea and again picks up the rook.

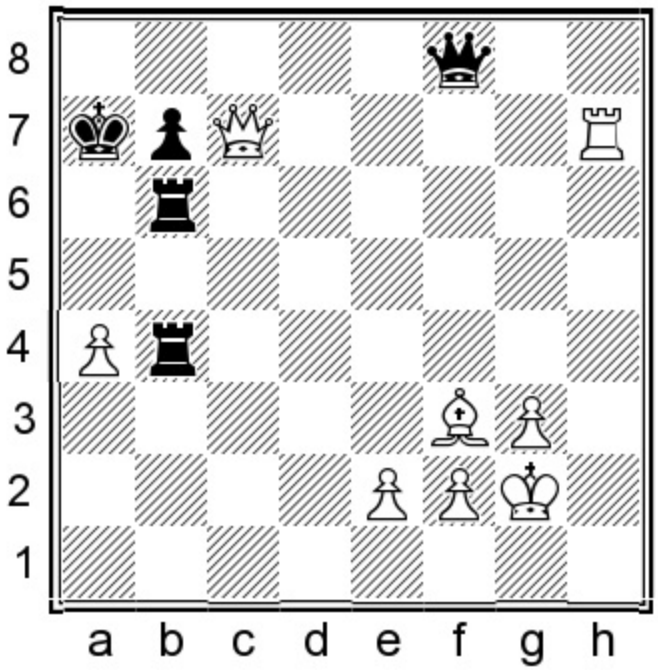
Once you have spotted the winning move above and calculated the simple variations that follow, there is really no need to look for anything more complicated. Nevertheless, here is the analysis of the other moves which were suggested.

44.♖h7

Increasing the pressure on b7 is natural and good, but not immediately decisive.

44...♖ab6

White has a dominant position, but still has to win the game. At first I was attracted to ♕e5 intending ♖h8, but then thought that perhaps ♖d7 followed by ♖d8, was a better way to convert. In any case the variations are not simple.



45.♖d7!

Threatening ♖d8 is best.

a) 45.a5 ♖6b5 46.a6 ♔xa6 does not spoil anything for White, but the best move is still 47.♖d7! to return to the ♖d8 idea.

b) 45.♕e5 prepares ♖h8 and back-rank threats. 45...♖xa4 46.♖h8 Even here, Black has a couple of reasonable practical tries:

b1) 46...♕d6?! 47.♕e8 wins easily.

b2) 46...♕f7!? 47.♕b8† ♔a6 and now 48.♖h5! is necessary to close the game out. (48.♕a8† ♔b5 allows Black to continue.)

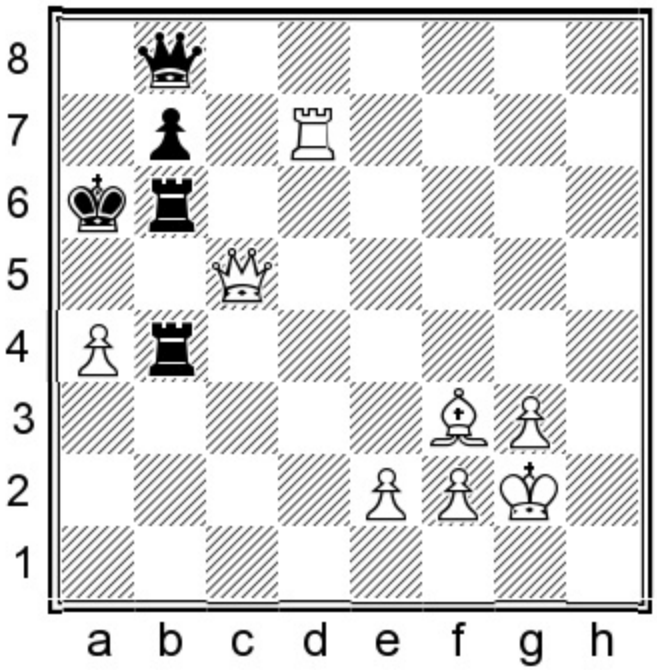
b3) 46...♖e6! forces White to find some good moves: 47.♕d5! (47.♕xe6? ♕xh8 and 47.♕b5 ♕b4! are unconvincing) 47...♕g7 48.♖g8! ♕f7 49.♖c8 ♖f6 50.♕c5† ♖b6 51.♖c7+–

45...♕b8 46.♕c5

Now Black's pieces are too tied up to resist.

46...♔a6

46...♖xa4 47.♗d5 wins.



47.♖c7!

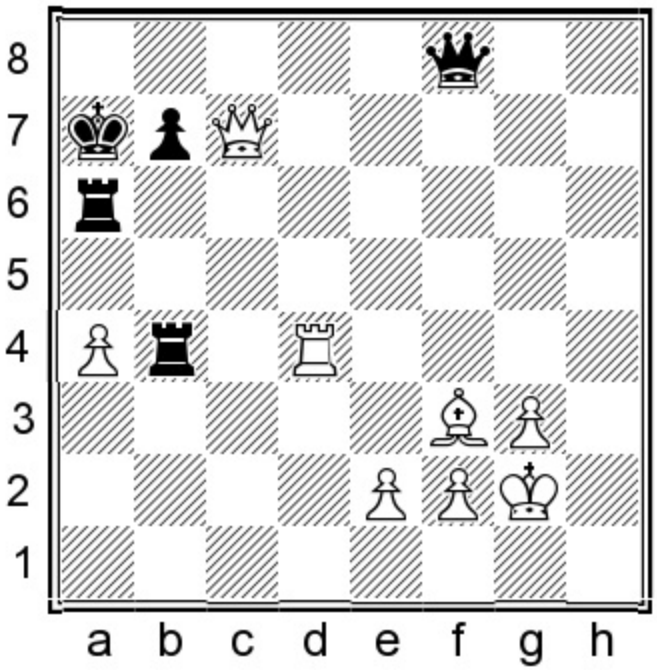
Once again, penetration to the back rank is key.

47...♖xa4 48.♖c8 ♕a7 49.♕f8 ♔b5 50.♕e8† ♔b4 51.♕e5

Threatening ♕c5† and ♕c3† amongst others.

51...♖a3 52.♕b2†+–

The computer mentioned another strong move along the rank that I was unaware of:
44.♖d4!?



This method of threatening ♖d8 is extremely strong, although the non-forcing nature of this move makes it an unusual choice for a human. I wrote this comment before Phil showed me the other

answers, so I must now give credit to Jesús Cao who recommended this line!

44...♖axa4

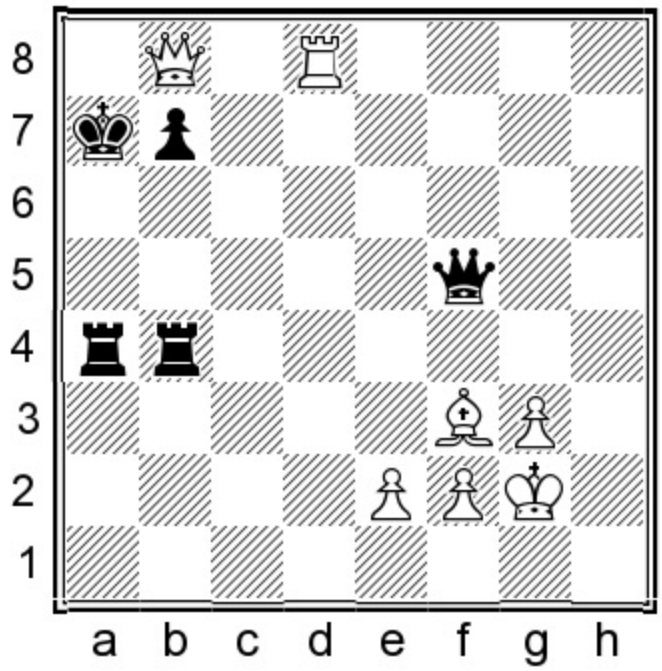
44...♖e6 45.♕a5† wins the rook.

45.♖d8

The visual 45.♗xb7! is rather nice: 45...♖xb7 (45...♖xd4 46.♗c8† ♔a8 47.♕b7#) 46.♖xa4#

45...♕f5 46.♕b8†

Unsurprisingly, the black king is too exposed to survive:



46...♔a6 47.♕a8† ♔b5

47...♔b6 48.♕xb7† ♔c5 49.♕c6#

48.♕xb7† ♔c4 49.♕c7† ♔b3 50.♖d3†+–

Indicative Scoring for Puzzle 43

Best Move	Score	Michael's Comments
1.♖f4	10	My choice which forced resignation, so well worth 10 points!
1.♖d4	9	Another good idea, exploiting the fact that the rook on b4 is tied to b7. The threat of ♖d8 will smoke out the black king.
1.♖h7	4	Should be followed by 1...♖ab6 2.♖d7! threatening ♖d8, but definitely allows Black to prolong the game.

Puzzle Commentary by Phil

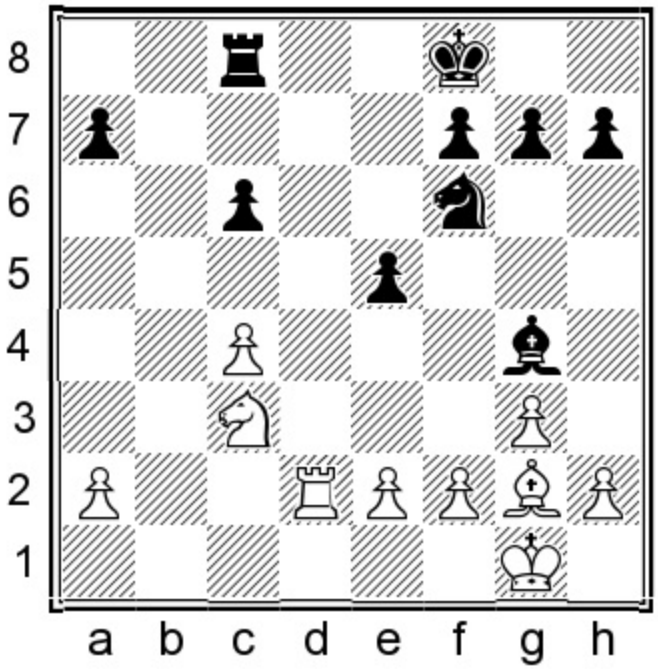
"When you've seen a good move, look for a better one."

All chess players know this famous advice from the longest reigning World Champion, Emanuel Lasker. I've noticed throughout these puzzle tests that, apart from better calculation skills, strong GMs put more effort into each move. They are not satisfied with a good move – they always look for the strongest move. In this case, all players will see 1.♖h7 is a good move, and most settle for this. I know, because this is exactly what I did when solving this puzzle. Only very strong players who have the relentless attitude of a Super-GM will find the much better and devastating 1.♖f4!.

Adams Insight

A position where you can very reasonably begin by looking at making a threat against b7 with 1.♖h7, in line with the general principle that the rook belongs on the seventh rank. However, if you are open to searching for a better move, like the simplest 1.♖f4 I played, or the unexpected 1.♖d4, the game will end more swiftly and certainly. The longer a game continues, the more chances that things can get out of control. Black's position is hanging by a thread here, and when things look so fragile it is worth checking carefully to see if there is a way to cause things to completely unravel.

Bonus Puzzle 44



White to play – Level 8

Show/Hide Solution

Bonus Puzzle 44 – Super-GMs evaluate better

Philip Hurtado
Elo 1924

00:15 I have my rook on the open file. That is good.
00:25 My bishop on g2 is also good, putting pressure on c6.
00:30 Black is pointing with his bishop at my e2-pawn.
00:45 I have to be careful with 1...♖b8 and ...♖b1†.
01:00 Black will definitely want to activate his rook.
02:00 1.♖d6 might be dangerous because of ...♖b8. I could play 1.h3 and then 2.♖d6 with a slight advantage.
Also 1.c5 looks good, as it stops Black's pawn from running away. I am definitely better here.
The plan of h3, g4 and g5 is also good. But 1.h3 ♗e6...
05:00 I think 1.c5 is great. It will look after my rook when it lands on d6.
Also 1.♖b2 with the idea of ♖b7 looks promising. Not 1.h3. I don't want his bishop to improve its position.
08:00 My candidate moves are either 1.♖b2 or 1.c5.
I think I'll go for 1.c5 because then 2.♖d6 can attack the weak c-pawn.
Oh no! If 1.c5 ♘d7. Oh, but I have 2.♘a4 – although my knight would be out of play there. Maybe the best move is 1.♖b2 after all.
10:00 I play **1.♖b2** with some advantage.

Evaluation: +0.35

Nathanael Paul
Elo 1993

00:30 First impression is that the game is very level. Although White's rook is on the open d-file and Black's rook is more passive.
01:15 Black has a more active bishop. 1.♖d6 forcing Black's bishop to go passive on d7 or else play his pawn to c5.
01:40 If 1.♖d6 ♖b8 he loses a pawn.
02:30 1.♖d6 ♗d7 holds things together but Black gets tied up a bit. And I can play 2.c5 to defend the rook against an eventual ...♔e7. (Goes into deep thought.)
04:15 1.♖d6 ♗d7 2.♘e4 ♘xe4 3.♗xe4 ♔e7 4.c5 and White has a pleasant position, leaving Black very passive.
06:10 1.♖d6 ♗d7 2.♘e4 ♔e7 Hitting the rook. 3.♘xf6 ♔xd6 4.♘xd7 ♔xd7 5.♗h3†!
08:00 However, after that whole line we have equal pawns, and Black's king is closer to the pawns, and might actually be winning.
08:55 So: 1.♖d6 ♗d7 2.♘e4 ♔e7 3.c5 and if Black plays 3...♘e8, I can either retreat or play 4.♖xd7 ♔xd7 and 5.♗h3†.
09:45 In this case White has a better knight and an outpost as well as pressure.
11:05 1.♖d6 is my move.

Evaluation: +0.6

Keith Arkell
Elo 2429

00:30 White would like to take the b-file in this position. The d-file can be controlled by the king.
01:00 Black would like to play 1...♖b8 himself and then move his king towards the d-file. So 1.♖b2 is screaming to be played.
02:10 1.♖b2 ♗e6 2.c5.
If 1.♖d6 ♖b8? I just take his pawn in broad daylight.
02:30 My candidate moves are: 1.♖b2, 1.♖d6. In a rapid. I'd probably have played 1.♖b2 by now.
03:30 1.♖b2 seems to give better long-term play for White.

Evaluation: +0.6

Michael Adams
Elo 2701

00:20 I guess I can play 1.♖d6, or 1.c5, to fix the weakness on c6.
01:50 If 1.♖d6 ♗e6 2.c5 ♘d7 3.♘a4 ♔e7 4.♗xc6 ♘xc5! might be better for Black. Or 4.♖xc6 ♖xc6 5.♗xc6 ♗xa2.
03:00 If 1.c5 ♘d7 the position is not so great for White. Black's king is nearer to the centre and his minor pieces are all good.
03:50 1.c5 ♘d7 2.♘e4!? ♔e7 I don't like this too much for White either.
04:30 White could also play 1.♖b2 ♖c7.
05:00 1...♖c7 is probably the best response.
07:30 Maybe 1.c5 ♘d7 2.♘a4 ♔e7. Not so easy to play for either side.
09:15 1.♖b2 ♖c7 2.c5 ♘d7 3.♘a4
Overall, if I had this position, I would prefer to be Black.
11:00 Of all the candidate moves (1.c5, 1.♖d6, 1.♖b2), 1.♖b2 is probably the safest option.
Black's side is easier to play. It is easier to find natural moves for Black such as ...♗e6, ...♘d7, ...♔e7 with lots of clear ways to improve his position. However, the position should be pretty equal with accurate play.

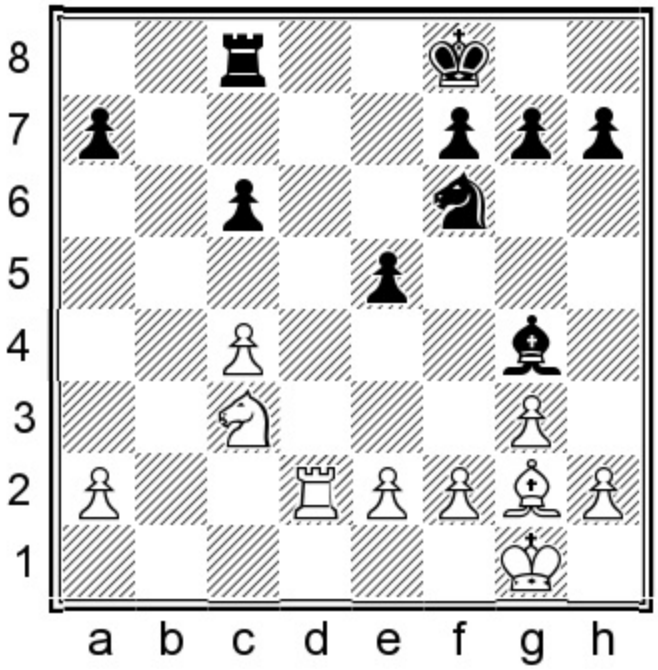
1.♖b2

Evaluation: 0.0

Detailed Analysis by Michael Adams

Zhang Di – Georg Meier

1.d4 e6 2.c4 ♘f6 3.♘f3 ♗b4† 4.♗d2 ♗xd2† 5.♕xd2 0-0 6.♘c3 d6 7.g3 ♘c6 8.♗g2 e5 9.0-0 ♗g4 10.dxe5 ♘xe5 11.♘xe5 dxe5 12.♖fd1 ♕xd2 13.♖xd2 ♖fd8 14.♖ad1 ♖xd2 15.♖xd2 c6 16.b4 ♔f8 17.b5 ♖c8 18.bxc6 bxc6



Initially this position looks quite pleasant for White, with a handy fianchettoed bishop, and the more active rook. However, on closer inspection this is not the case. Although the pawn on c6 looks weak, in fact both c-pawns are roughly equally vulnerable. If these pawns get swapped, the fact that the black monarch is more centralized and has an easy route into play means it is going to get active first, which will be an important factor. Black has several useful, obvious moves available to improve his position, and could constructively continue with ...♗e6, ...♘d7 or ...♔e7 if given time to do so. White, in contrast, has to grapple with some tough decisions.

19.♖b2

This natural move was played in the game. There are two other main tries:

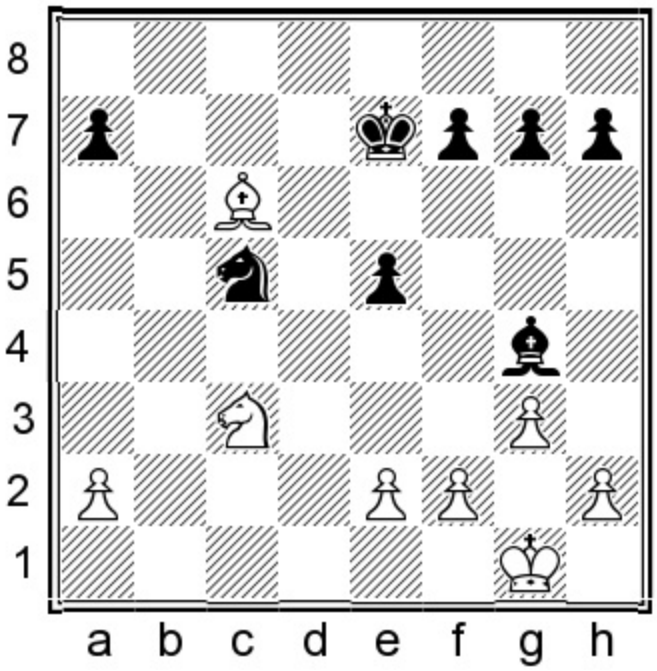
19.c5 ♔e7 20.♖d6 ♘d7

White's c-pawn is also not safe, even though it is no longer on a light square.

21.♖xc6

21.♘e4? doesn't protect the pawn as Black can play 21...♘xc5 anyway.

21...♖xc6 22.♗xc6 ♘xc5



White's king is rather remote from the action compared to its counterpart, so White must fight for a draw.

23.f3 ♗e6 24.♔f2 ♔d6 25.♗a8 ♘a6!?

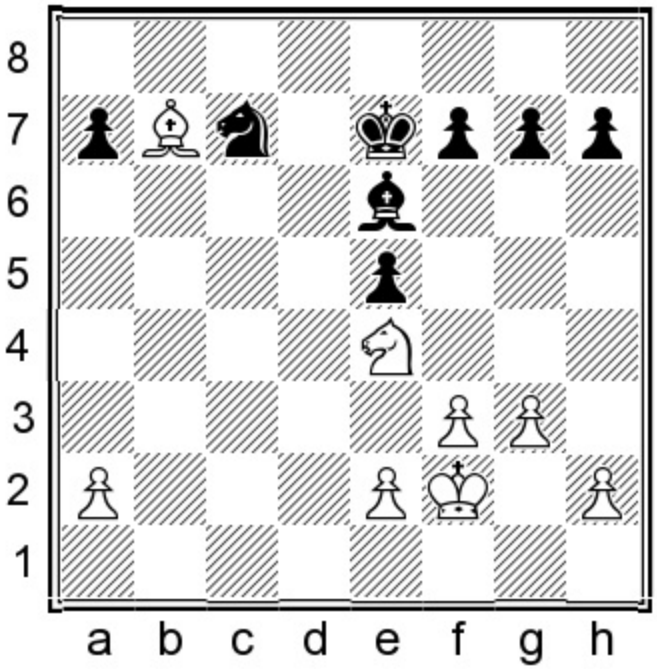
This still feels uncomfortable for White, for instance:

26.♗b7

26.♔e3? ♘b4 27.a4 ♔c5∓

26.♘b5†? ♔c5 27.♘xa7 ♔b6 28.♘c6 ♘c7–+

26...♘c7 27.♘e4† ♔e7



28.a4

28.a3 ♘b5∓

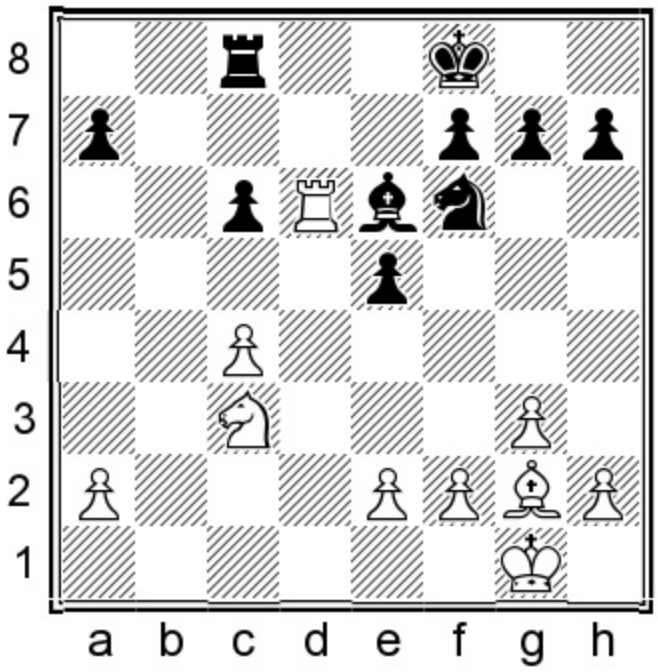
28...f5 29.♘c5 ♔d6∓

White should hold, but Black would still have some practical chances.

19.♖d6!?

In the end I decided that this simplifying line is the most practical route to a draw, but it requires precise planning.

19...♗e6



20.♖xc6

20.c5?! is less precise in view of 20...♘d7 and now:

a) 21.♖xc6 ♖xc6 22.♗xc6 ♘xc5 with good chances for Black.

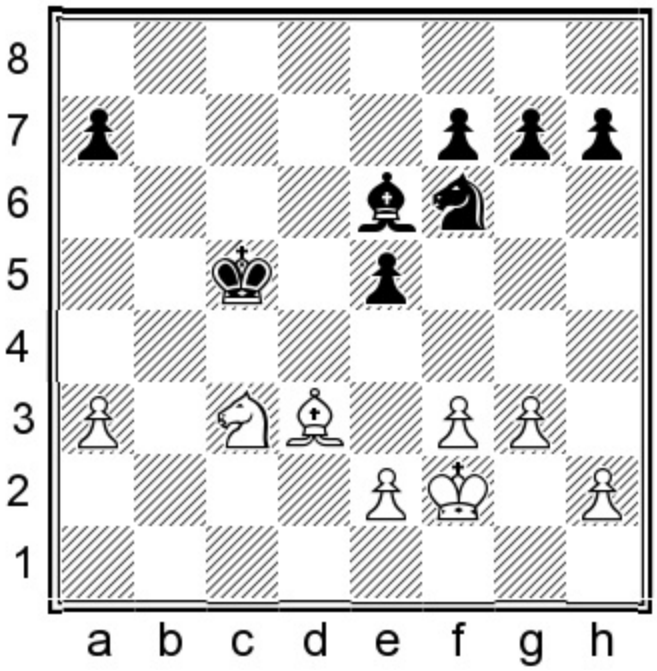
b) 21.♗xc6 ♘xc5 is still awkward, with ...♔e7 coming.

c) 21.♘a4 ♔e7 22.♖xc6 (22.♗xc6? ♘xc5–+) 22...♖xc6 23.♗xc6 ♗xa2 The passed a-pawn is so strong that Black has great winning chances.

20...♖xc6 21.♗xc6 ♗xc4

The black king is on a fast track to c5 so White must be careful. Still, this is perhaps the best outcome for White from the initial position, which was difficult to defend. A logical continuation would be:

22.♗b5 ♗e6 23.a3 ♔e7 24.f3 ♔d6 25.♔f2 ♔c5 26.♗d3

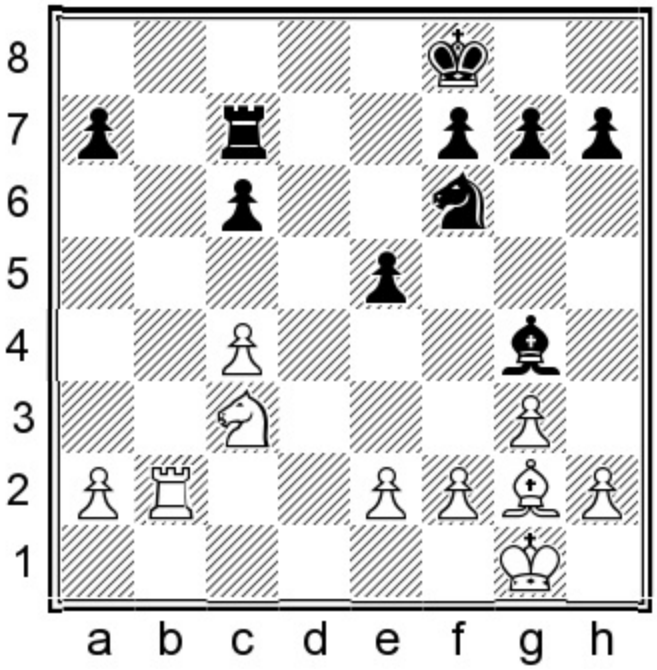


White should hold, especially since 26...♔d4 can be met by 27.♘b5†.

19...♖c7!

This is stronger than 19...♗e6 20.♖b7 ♗xc4 21.♖xa7 ♘d5 22.♘e4 ♖c7 23.♖xc7 ♘xc7 24.♘d2 ♗xa2 25.♗xc6= when White is out of danger.

Despite Black's passive rook, it is far from easy for White to secure a draw. The control of the b-file by White's rook isn't very important, as it just looks at open territory.



20.f4

This opens a path for the king but damages the kingside pawns.

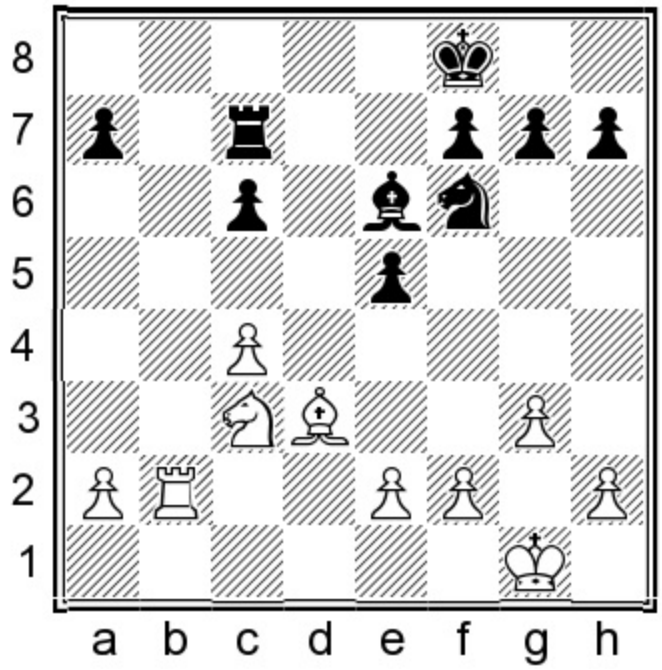
20.♘e4 ♘d7 21.f4 ♔e7 22.♔f2 ♗e6 23.♘d2 f5 is not simple for White.
20.♖b4 ♘d7 21.♖a4 ♗e6 22.♖a6 ♗xc4 23.♖xc6 ♖xc6 24.♗xc6 ♔e7 again leads to issues with the black king getting active.

20.♗e4!

This surprising move is best. The fact that the bishop should be rerouted from the active diagonal to a purely defensive role is a clear sign that White is on the back foot.

20...♗e6 21.♗d3

It seems unnatural and a bit depressing to give the bishop such a passive role. However, it does seem reasonably effective. For instance:

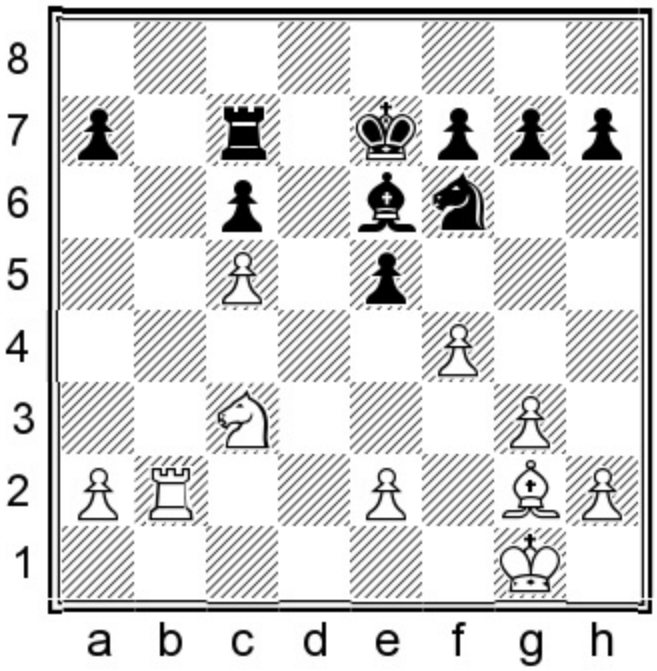


21...♘d7 22.♘a4 ♔e7 23.f3=

Intending ♔f2-e3.

20...♗e6 21.c5 ♔e7

21...♘d7!? was also promising.



22.e4?

The pawn doesn't belong here, as it impedes White's bishop.

22.♘e4 is better.

22...g6

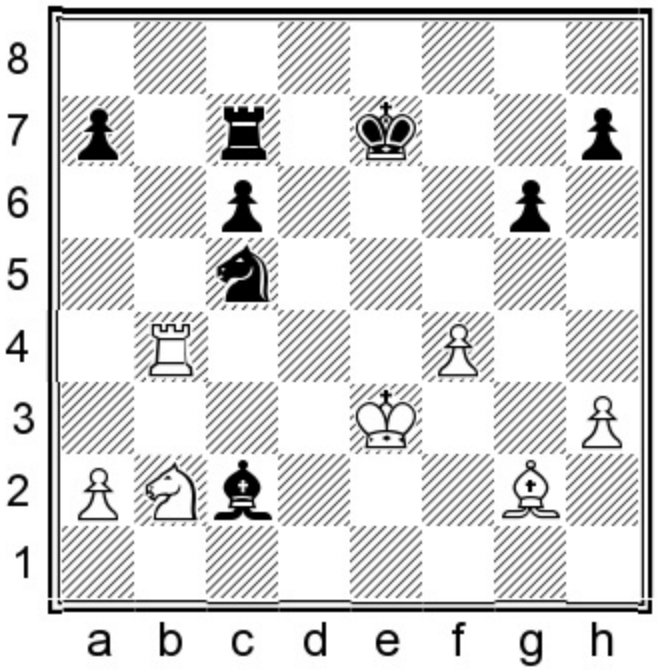
22...♘d7!? was worth considering again.

23.h3 exf4

Black has good options on every turn, such as 23...♘d7!? 24.♘a4 h5.

24.gxf4 ♘d7∓ 25.♘a4 f5 26.exf5 ♗xf5 27.♔f2 ♘f8 28.♔e3 ♘e6 29.♖b8 ♗c2 30.♘b2 ♘xc5 31.♖b4

It's worth reflecting on how redundant the white rook turned out to be, despite appearing actively situated. Georg went on to convert the extra pawn:



31...♗f5 32.♖c4 ♘e6 33.♖xc6 ♖xc6 34.♗xc6 ♗xh3 35.♘c4 ♗f5 36.♘e5 ♔d6 37.♗e8 ♘c7 38.♗f7 ♘d5† 39.♔f3 ♔c5 40.♗g8 ♘f6 41.♗f7 ♗e4† 42.♔g3 ♗d5 43.♗xd5 ♘xd5 44.♔g4 a5 45.♘d7† ♔b4 46.f5 ♘e3† 47.♔f4 ♘xf5 48.♘f8 ♔a3 49.♘xh7 ♔xa2 50.♘f8 ♘e7 51.♔e4 a4 52.♘e6 a3 53.♔d3 ♔b1 54.♘d4 a2 55.♘b3 ♔b2 56.♔c4 g5

0–1

Indicative Scoring for Puzzle 44

Best Move	Score	Michael's Comments
1.♖b2	10	Taking control of the b-file.
1.♖d6	10	Looking to simplify.
1.c5	9	Gets the white pawn off a light square where it is vulnerable.

Puzzle Commentary by Phil

That Super-GMs evaluate better is a fact which has been demonstrated throughout this book. The stronger a player is, the closer their evaluations are to those of Stockfish. Of all the participants in these puzzles, Michael Adams was the one who gave the overall closest evaluations to that of the chess engine. In this particular puzzle, players rated under 2100 thought unanimously that White was better. Many strong players, including Juan Reyes and Keith Arkell, also thought that White was better, both evaluating the position with +0.6. The first player to recognize that the position was easier to play for Black was Michael. The game continuation and Michael's analysis provide convincing evidence for this.

Adams Insight

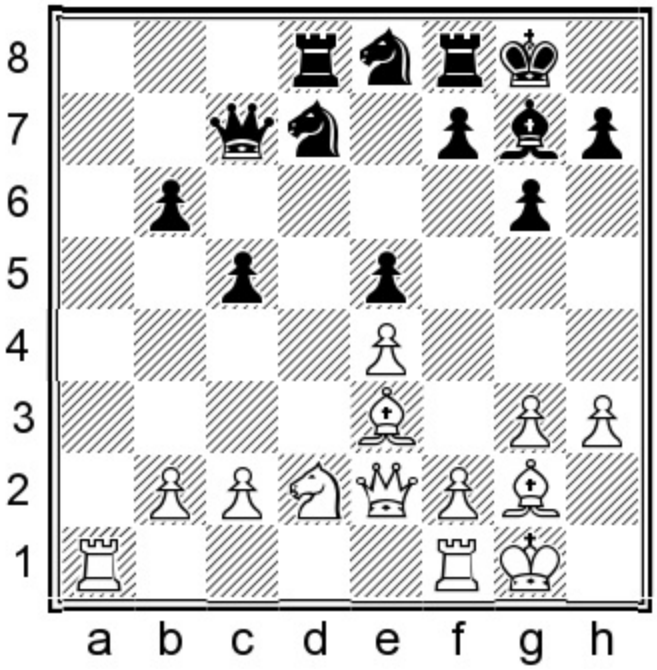
At first it's natural to think White must be comfortable, but after further contemplation you should become aware that this is more optical than real. Realizing when a position looks better than it is, and that you have to be careful, is an important skill, and also nearly always the first step to limiting the damage. If you don't sense the danger, you can't mitigate the risk.

Initially, the most obvious features of the position are that White's rook is more active and the bishop on g2 eyes the pawn on c6. Further contemplation shows that the knight on c3 is not well placed though. Taking a look at the black forces, the rook is not too active, but it is useful defensively. Black's minor pieces both have solid squares to head to, and have active roles to undertake working together harmoniously. Additionally, both of White's queenside pawns can be targeted. The key factor that tips the scales in Black's favour is that his king is ready to enter the game, and is clearly superior to its counterpart. Black also benefits practically from the fact that he has several simple options available to improve the position, and his next few moves are clear, whereas the way forward for White is a lot murkier. Weighing up these factors, together as a whole, shows why White is the player who should be more cautious here.

Positions 45-48

The Final Curtain

Bonus Puzzle 45



White to play – Level 7

Show/Hide Solution

Bonus Puzzle 45 – Fischer versus Stockfish

Philip Hurtado
Elo 1924

00:30 I control the a-file. White has the two bishops. White is better.
02:00 The candidate moves are: 1.Rook moves up the a-file, followed by the other rook joining up;

1.♘c4; 1.♕b5; 1.b3.
03:30 Black's plan is to play ...f5 and ...f4.
03:35 Probably the best move is 1.♖a3 or 1.♖a4.
I go for **1.♖a3**.

Evaluation: +0.45

Keith Arkell
Elo 2429

01:00 1.♘c4 looks promising. White is clearly better.
01:30 I am looking at controlling the a-file with 1.♕a6. Also looking at 1.♖fd1, with a view to bringing my bishop to f1.
02:00 1.♕b5? No, 1...♘d6. What about 1.♕a6? I could settle the queen on that square.
02:30 Can I do something interesting with 1.♗g5? No.
03:00 I don't want to play 1.♘c4. I could play 1.♖fd1, or 1.♕a6.
03:30 There is something appealing about moving my queen to a6.
04:00 1.h4 and 1.♗f3 are also possible. But not as important.
04:30 There is nothing tactical. Another decent idea is to double the rooks on the a-file.
06:00 Maybe 1.♖fd1 and ♗f1 is not that great.
06:30 I am warming up to the idea of doubling my rooks on the a-file.
07:00 I want to double rooks first. I play **1.♖a6**.

Evaluation: +0.6

Julio Granda
Elo 2630

00:05 This position rings a bell. Is it Fischer's?
00:12 The first move that comes to mind is 1.♘c4. Also 1.♖a6.
Basically White is better due to control of the light squares, and the control of the a-file. Besides that, Black has a clumsy knight on d7, that will find it difficult to get to d4. And even if it gets there, I can expel it with c3.
03:30 Black's bishop on g7 doesn't have good prospects either. Another factor to take into account is that Black has potential weaknesses: in particular, the pawn on b6.

04:30 Another move could be 1.♘b1 with the idea of taking it to c3 and d5. But to 1.♘b1, there is the reply 1...♕c6, and after 2.♘c3 ♘c7 controls d5.
06:45 Another useful move is 1.♖fd1.
07:20 1.♘c4 also looks good.

(Goes into deep thought.)

09:45 1.♖fd1 followed by ♘c4 should give White the advantage: over +1.

09:50 I was worried about the reply 1...♕c6 and 2...♘c7 with the plan of exchanging rooks.

09:55 But 1.♖fd1 ♕c6 2.♘c4 ♘c7 3.♖d6! gives White the advantage, as I can double rooks on the d-file.

10:00 1.♘c4 ♘d6 2.♘xd6 ♕xd6 and now the technical move here is 3.♕b5! with advantage.

10:20 Both moves are good. Perhaps I'd go for 1.♖fd1. I like it a bit better.

1.♖fd1

Michael Adams
Elo 2701

Evaluation: +1.0

00:30 Looks like a rather pleasant position for White. Weak light squares and the bishop pair.

00:50 1.♘b1, with the idea of taking it to d5 via c3, looks good.

01:00 Or doubling rooks on the a-file also looks logical.

01:30 1.♘c4, I guess, is also a possible move.

If 1.♖a3 ♘d6, with the idea of going ...♘b5.

03:00 Actually, 1.♖a6 could be a more accurate version. But then 1...♕c6 and ♘c7. So 1.♖a6 doesn't seem right.

03:30 1.♖fd1, to give the bishop access to the f1-square and support ♘c4.

03:50 1.♖fd1 ♘ef6 2.♕b5 and ♘c4 looks quite good.

04:45 1.♘b1 ♘d6 2.♘c3, and if 2...♘f6 3.♗g5 looks pretty good for White.

05:10 1.♖fd1 ♘df6 looks a bit strange for Black.

06:30 So it's either 1.♖fd1 or 1.♘b1.

09:00 If 1.♘b1 ♕c6 2.♘c3 ♘c7 is good for White.

09:45 And if 1.♖fd1 ♘d6 2.♘b1 ♘f6 Black's knights are worse as they are a bit less flexible.

10:20 So not really sure. But I am going for **1.♖fd1**.

Evaluation: +0.5.

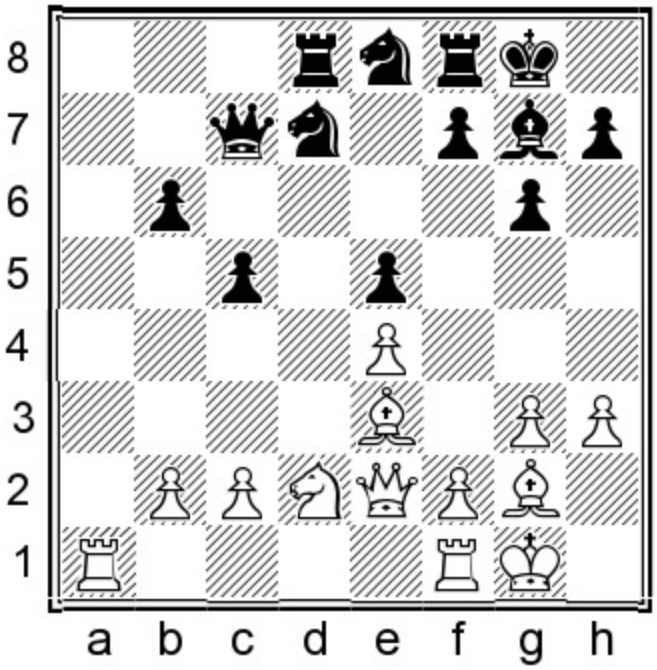
Deeper Analysis by Michael Adams

Robert James Fischer – Ismet Ibrahimoglu

Siegen (Olympiad) 1970

1.e4 c6 2.d3 d5 3.♘d2 g6 4.♘gf3 ♗g7 5.g3 ♘f6 6.♗g2 0-0 7.0-0 ♗g4 8.h3 ♗xf3 9.♕xf3 ♘bd7

10.♕e2 dxe4 11.dxe4 ♕c7 12.a4 ♖ad8 13.♘b3 b6 14.♗e3 c5 15.a5 e5 16.♘d2 ♘e8 17.axb6 axb6



This position is interesting as White has several tempting plans – to double rooks on the a-file, which can be done in a few ways, or put a rook on the d-line. Another way to improve White's pieces is to transfer the knight towards d5 or b5, via b1 and c3, or move it to c4 immediately. White can also try to blend a combination of those plans, so there are many useful candidate moves available. In fact, there are twenty or so moves which maintain a clear plus! This shows the permanent nature of the advantages, such as the sensitive light squares, in particular the central square d5, as well as the bishop pair.

18.♘b1

This was Fischer's choice in the game, improving the knight's position at once. This backwards knight move heading towards d5 has a classy touch, but it telegraphs White's plan and does give Black a bit more freedom.

18.♖ad1 seems ridiculous, as it clearly can't be as good as moving the other rook to this square. However, I mention it just to point out that Stockfish still gives White a solid advantage, showing that White has such a good position that even if he ignores the a-file he is doing very well. Perhaps this also hints at the fact that the a-file is not where White should focus his energies.

18.h4 is a useful move, but I feel other priorities should be higher, and one distant day a black knight might land on g4.

18.♖a6 has the logical idea to double rooks, and was a common choice among the solving panel, but the drawback to this move is that Black will gain time with ...♘c7 in the future. 18...♕c6 (18...♘b8 19.♖a3 ♘c6 is also possible) 19.♖fa1 ♘c7 20.♖a7 and White is still better, but the advantage is less than after other moves.

18.♖a3 and 18.♖a2 are slightly better ways to double up. Either way, 18...♕c6 19.♖fa1 ♘c7 is a logical response, when White is better but the game continues.

18.♘c4

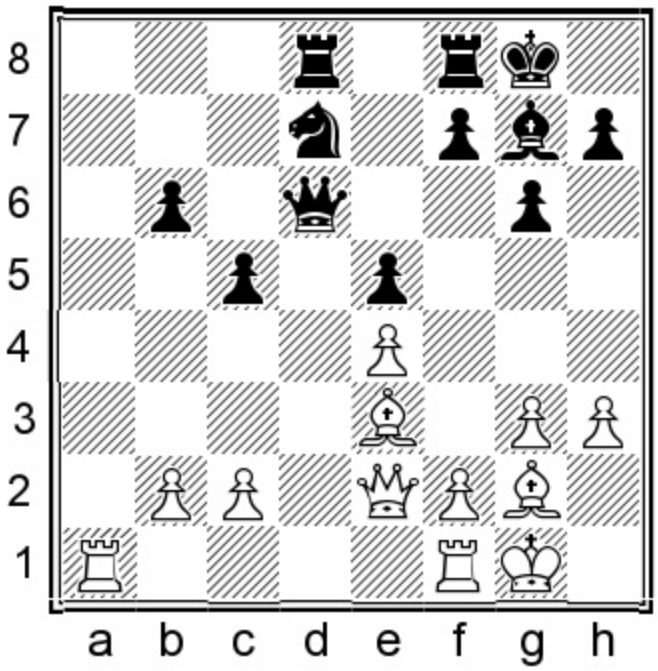
This is another very good option. The knight is surprisingly secure here, as Black lacks light-square control.

18...♘d6

18...♘ef6 19.♖fd1 leaves White in full control.

18...b5 seems natural, but the pawn can't be maintained on b5: 19.♘a3 ♘d6 (19...b4 20.♘c4±) 20.♘xb5 ♘xb5 21.♕xb5 ♖b8 22.♕a5 ♕xa5 23.♖xa5 ♖xb2 24.♖d1±

19.♘xd6 ♕xd6

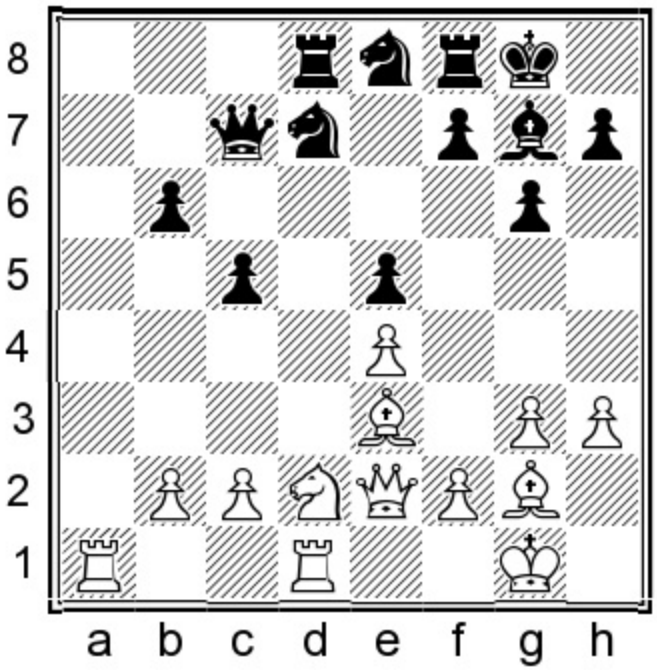


20.♕b5!

White has obtained a slightly better version of Fischer's game.

18.♖fd1!

This move, which happens to be the computer's favourite, is a highly practical choice which I thought was best. It improves the rook while keeping all options open, and also frees the f1-square for White's bishop at a later date. The main positive, however, is that it makes it difficult for Black to solve the concrete problem of the knight on e8.



18...♘d6

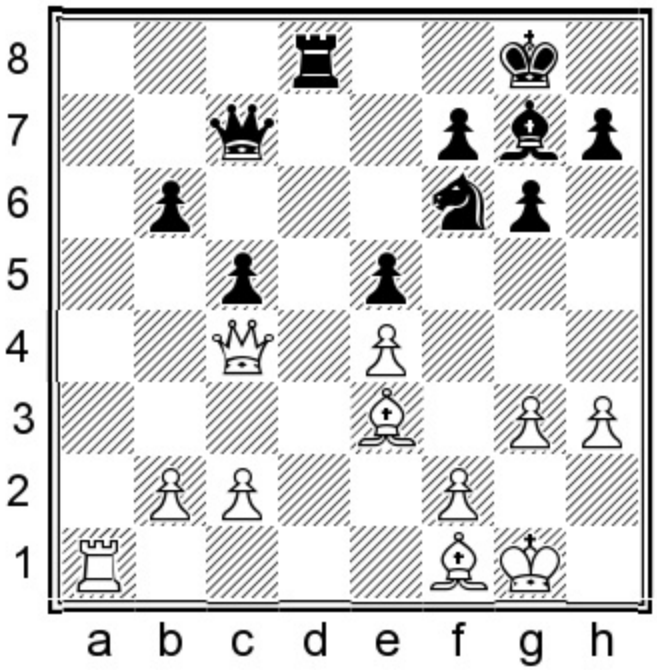
18...♘ef6 19.♕b5! is strong, now that the knight has lost touch with the d6-square.

18...♕c6 19.♘c4 ♘c7 20.♖d6 is an important line which was mentioned by Julio, who judged this position very well.

19.♘c4 ♘xc4 20.♕xc4 ♘f6

20...♕c6? 21.♖a7 leaves Black in horrible trouble.

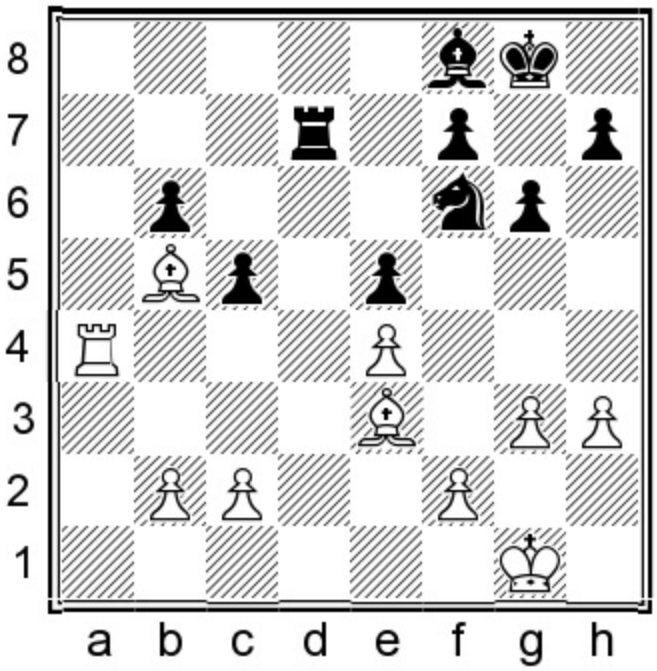
21.♖xd8 ♖xd8 22.♗f1



22...♕c6

Both 22...♕b7 23.♕a6! and 22...h5 23.♖a6 ♕b7 24.♕a4! see White increase his advantage.

23.♖a7 ♖d7 24.♕a4 ♕xa4 25.♖xa4 ♗f8 26.♗b5



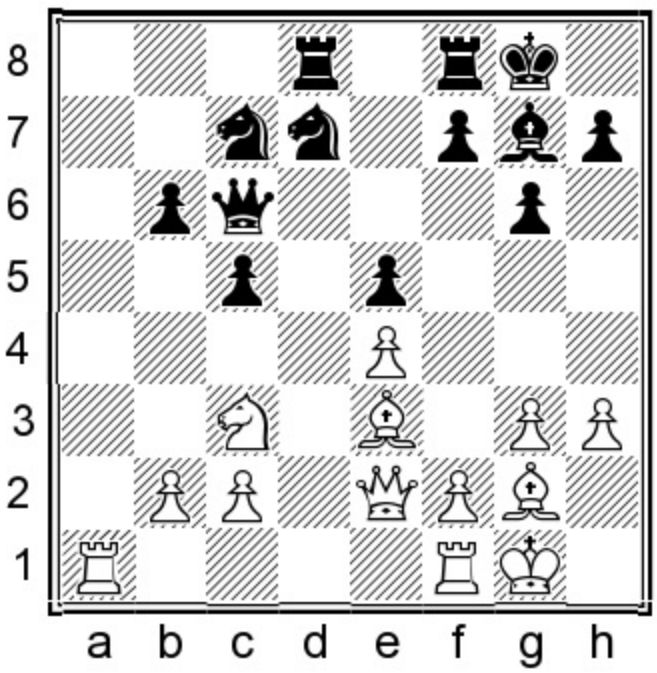
With a pleasant edge for White, due to the much superior minor pieces. Note that the following active try achieves nothing for Black:

26...♖d1† 27.♔g2 ♖b1 28.b3 ♖b2 29.♗d3

There aren't many targets in White's position.

18...♕b7?!

18...♕c6! 19.♘c3 ♘c7 was a much better defence:



Covering b5. White remains better, but it is not easy to decide how to continue. Here are a few options:

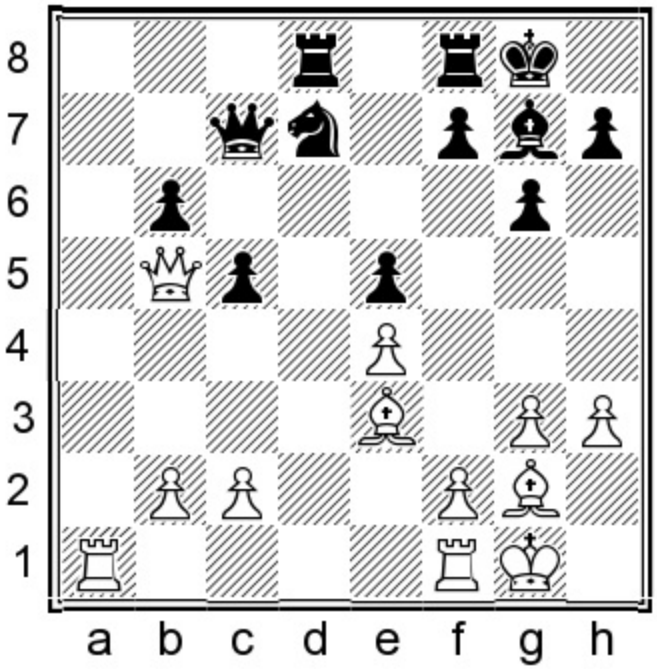
a) 20.♖fd1 ♖a8 and Black prepares to simplify.

b) 20.f4!? is a good option, but in such a pleasant position it seems impractical to touch White's secure kingside.

c) 20.♘d5!? ♘xd5 21.exd5 ♕d6 22.♕b5 f5 23.♕c6 is good for White, but White would have to take into account that Black's bishop has some chances to get active after a future ...e5-e4.

19.♘c3 ♘c7 20.♘b5 ♕c6 21.♘xc7 ♕xc7 22.♕b5

Fischer clamps down on the light squares, and Ibrahimoglu is unable to cope with the depressing defensive task.



22...♖a8 23.c3 ♖xa1 24.♖xa1 ♖b8 25.♖a6 ♗f8 26.♗f1 ♔g7 27.♕a4 ♖b7 28.♗b5 ♘b8 29.♖a8 ♗d6 30.♕d1 ♘c6 31.♕d2 h5 32.♗h6† ♔h7 33.♗g5 ♖b8 34.♖xb8 ♘xb8 35.♗f6 ♘c6 36.♕d5 ♘a7 37.♗e8 ♔g8 38.♗xf7† ♕xf7 39.♕xd6

1–0

Indicative Scoring for Puzzle 45

Best Move	Score	Michael's Comments
1.♖fd1	10	I liked this idea that Julio outlined very clearly, a natural move with a logical plan in mind.
1.♘b1	9	Fischer's choice! The knight heads towards d5 or maybe b5. Actually not sure I am really qualified to give this less than 10.
1.♘c4	9	As the knight can't be budged from here effectively by ...b5, this is another good option for that piece.

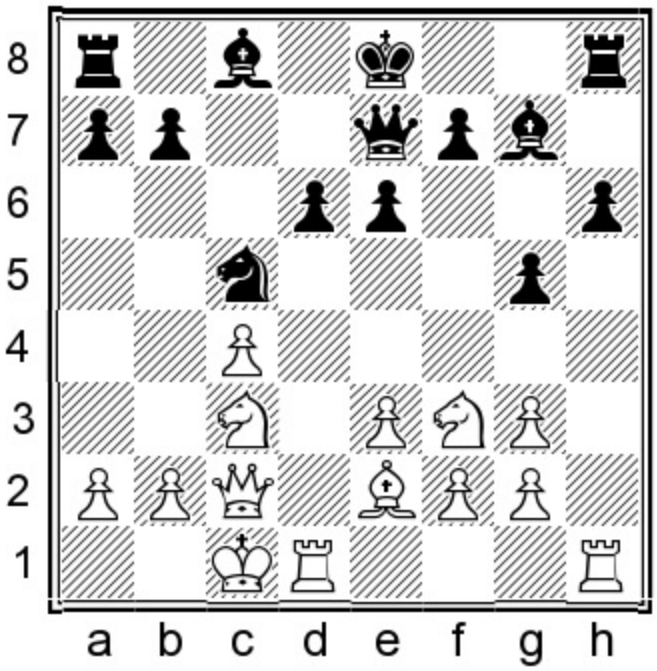
Puzzle Commentary by Phil

The title is of course clickbait: Fischer played what seemed to me to be a surprising move, and I was curious as to how Stockfish would judge it. The computer approves, but also sees many good alternatives; the evaluation for any of the top five moves is more than +1.0.

Adams Insight

There are lots of promising options here, and various different ways to develop White's advantage. The recurring theme is Black's lack of light-square control, and the absence of the queen's bishop is keenly felt. The most interesting plans involve White choosing a route for his knight. Fischer's plan of ♘b1-c3 is one such option, eyeing b5 and d5. The alternative is moving the knight to c4 at some moment. Doing so immediately is certainly an option, where it remains a thorn in Black's side, as he will struggle to dislodge it with ...b5. The flexible ♖fd1 seems marginally more precise though, improving another piece while keeping both of the aforementioned options open for the knight.

Bonus Puzzle 46



White to play – Level 8

Show/Hide Solution

Bonus Puzzle 46 – Fool's Gold

Anonymous
Elo 2305

00:50 A typical position for a 1.d4 opening. I play 1.e4, so I am not familiar with these positions. The first move that comes to mind is 1.♘b5.
01:00 Now we have to check if there is a defence for Black.
02:00 Black is underdeveloped, so he is going to castle as soon as he has a chance.
02:15 In a blitz game, 1.♘b5 is a move I would definitely play.
02:30 The most likely reply to 1.♘b5 is 1...0-0.
04:00 This is the continuation that I would have played in a rapid. But because this is puzzle, I know there is something hidden. So, as Lasker said: "Once you find a good move, wait, look for a better one."
05:00 1.♘b5 0-0 2.♖h5 f5 But in this position White has to be careful, as Black has the two bishops.
07:00 Wait, I haven't considered 1.b4.
08:00 1.b4 ♗xc3 2.♕xc3 is better for White.
09:30 1.b4 ♘a6 2.♘e4 0-0 3.♘exg5 looks menacing. But it's not the end of the world.
11:00 White has some other opportunities, but nothing definite.
11:30 1.b4 is a committal move, and I don't get an immediate advantage, so I should not play it.
12:00 I go for **1.♘b5**.

Evaluation: +0.65

Julio Granda
Elo 2630

00:15 This is a typical position in which Black has played ...♘h5 and ...♘xg3. The first impression is that White can play 1.♘b5 and take the pawn on d6. So let's see if it is really that good.
01:45 1.♘b5 d5
02:00 What about 1.♘b5 0-0?
03:00 I don't like 1.♘b5 that much now.
05:00 1.♘b5 0-0 2.♘xd6 ♗d7! with the idea of ...♗a4 and weakening the black squares by forcing White to play b3.
06:00 Maybe I should play 1.♘d4 instead, with the idea of following up with 2.f4 if Black castles.
06:15 1.♘d4

Evaluation: +0.50

Michael Adams
Elo 2701

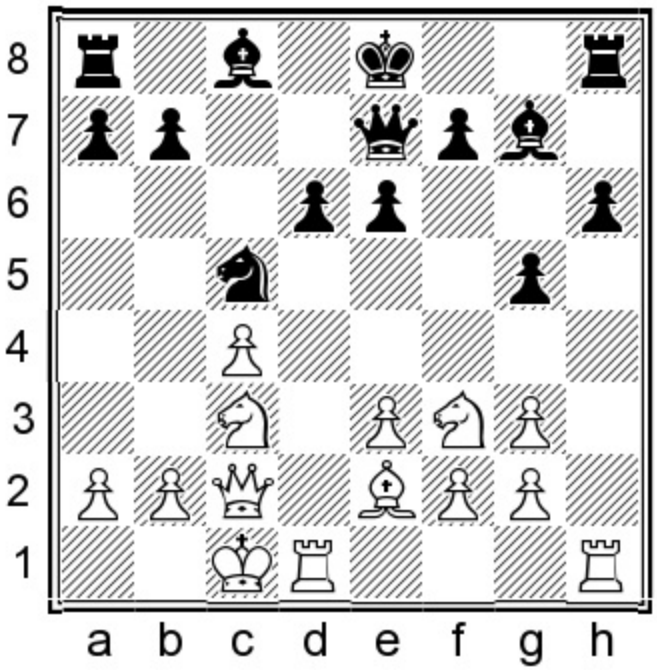
00:30 Looks like Black has quite a useful bishop. A good move could be 1.♘b5.
00:50 Also good could be 1.♘d4. Although not clear what it does yet.
01:00 Another possibility is 1.♖d2.
1.♘b5 is pretty forcing. Black would probably have to castle and give up the pawn.
02:00 1.♘b5 0-0 2.♘xd6 ♗d7 3.♘e4 ♗a4 4.b3 ♘xe4 5.♕xe4 ♕a3† and Black is doing very well.
03:30 I am not so convinced by 1.♖d2 ♗d7.
If 1.♘e4 Black cannot castle, because of 2.♘exg5. So he is obliged to take the knight.
03:45 1.♘e4 ♘xe4 2.♕xe4 0-0 3.♗d3 f5, trapping the queen.
05:30 So White needs another move. Possibly 1.♘d4.
05:45 1.♘d4 ♗d7 White can now continue normally with 2.f4.
06:00 Black's position is a bit loose, and White's position is quite solid. So White should not try something fancy, and should instead continue slowly improving his position.
06:30 I'd play **1.♘d4**.

Evaluation: +0.3

Detailed Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



White has a handy lead in development but his king is not comfortable on the queenside, where the bishop on g7 is eyeing it menacingly. Black's king also has some issues: the kingside is a bit airy, but castling long will take more time, and there isn't time to set up a completely secure home for the monarch there.

1.♘d4!

Centralizing and preparing f2-f4.

1.♘b5?

This looks tempting but is a significant mistake. While White is grabbing an insignificant pawn, Black will activate his pieces and the unopposed bishop on g7 will become a monster.

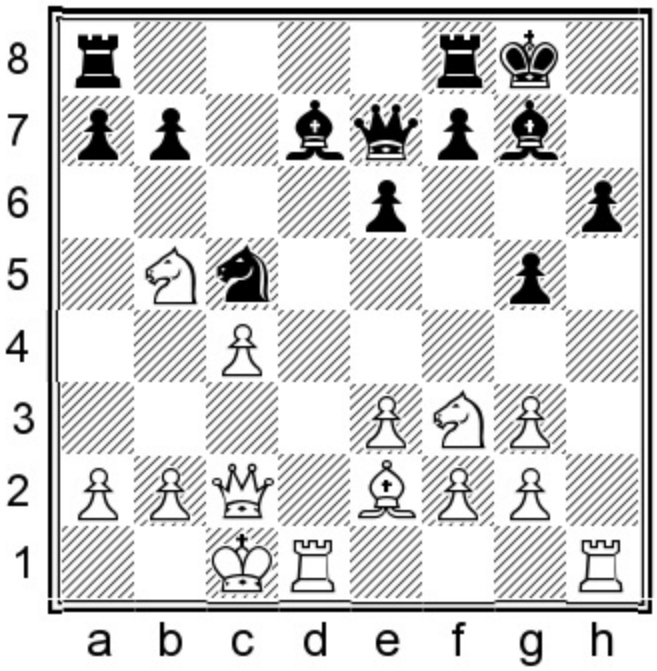
1...0-0 2.♘xd6

2.♖h5 looks tempting, but after 2...♗d7 3.♘xg5 f5 4.♘f3 ♗xb5 5.cxb5 ♖ac8 Black has doused the fire on the kingside. Play may continue 6.♔b1 ♘e4 7.♕b3 ♘xf2 8.♖g1 ♘e4, possibly followed by ...d5, leaving White's structure in ruins.

2...♗d7 3.♘b5

3.♔b1? ♗a4 4.b3 ♗c6–+

3.♘xg5!? is a surprising tactical try but 3...f5! is a convincing answer. (White's idea works well after 3...♕xg5? 4.♖h5 ♕f6 5.♖xc5 ♕xf2 with a very messy position.) 4.♘h3 ♗a4! 5.b3 ♗c6 6.♘f4 ♖fd8 White's dark squares are horribly weak.



3...♖fc8

3...a6 4.♘c3 b5 5.♘d4 is less convincing.

4.♔b1 ♗c6 5.♘c3 ♕f6

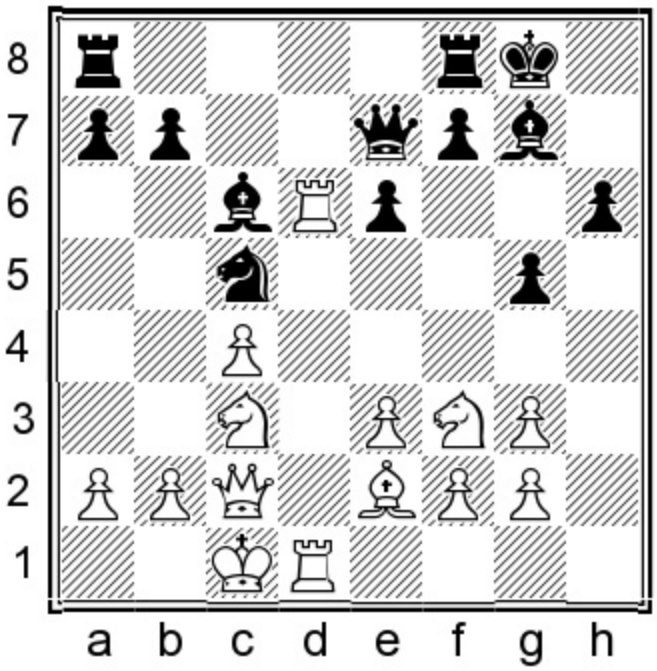
Black has great compensation for the pawn.

1.b4? is asking too much of White's position. It is useful to boot the knight backwards, but Black simply regroups with 1...♘a6 2.a3 ♘c7, when the howling gale down the long diagonal is too high a price to pay.

1.g4 is unnecessarily committal, as White might prefer to advance his f-pawn instead after playing ♘d4.

1.♔b1 is a sensible option but White will most likely play ♘d4 afterwards, so it is sensible to do so at once, maintaining maximum flexibility.

1.♖d2 The other way to attack d6 directly also fails to hit the mark. 1...♗d7 2.♖hd1 This seems logical, but the rooks end up in a tangle on the d-line. 2...0-0 3.♖xd6 ♗c6



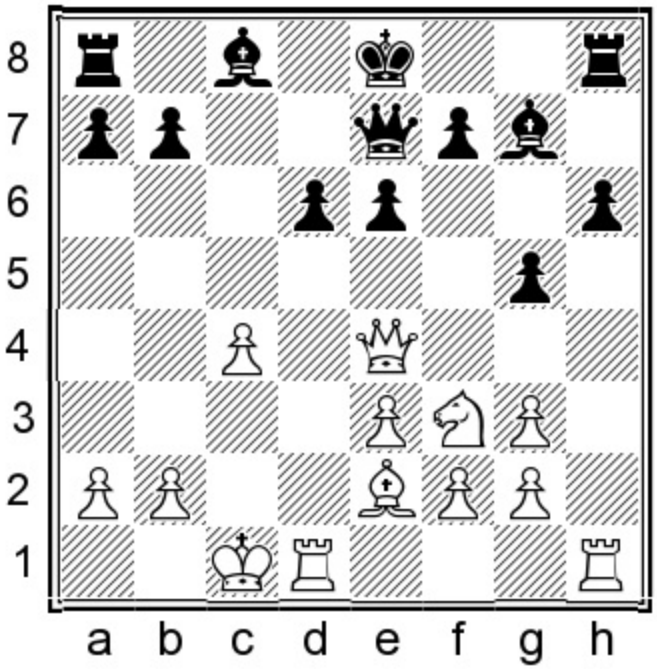
White should give up the exchange here, but 4.♖6d2 ♗xc3 5.♕xc3 ♘e4 leaves him with inadequate compensation.

Another attempt is:

1.♘e4

This is an interesting try, but flawed.

1...♘xe4 2.♕xe4



2...♗d7!

Black should generate active counterplay quickly.

2...0-0? 3.♘d4! threatens ♘f5, so White gains valuable time and Black's king starts to feel

uncomfortable. (But not 3.♗d3?? f5 when White's queen is trapped!)

3.♕d3

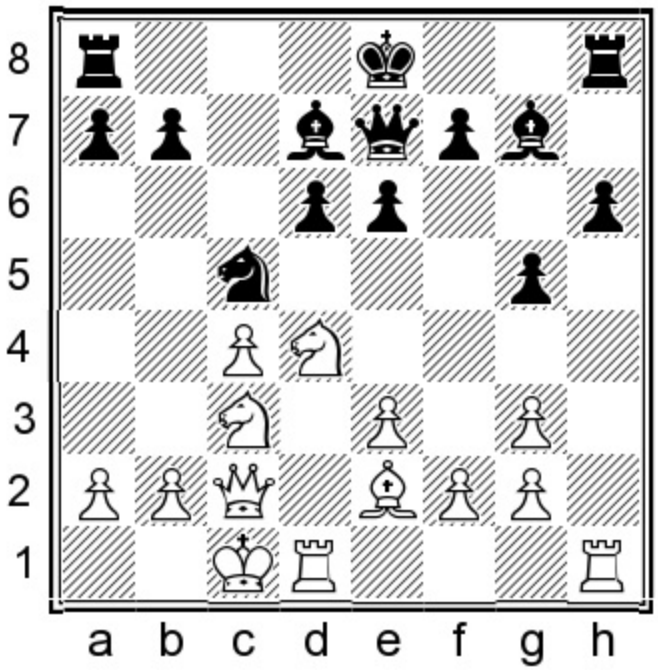
3.♕xb7 is much too dangerous. After 3...0-0 a sample line is: 4.♕e4 ♖ab8 5.♘d4 d5 6.cxd5 ♖fc8† 7.♔b1 ♖xb2† 8.♔xb2 ♕b4† 9.♔a1 ♕c3† 10.♔b1 ♖b8† 11.♘b3 ♕b2#

3...♖c8 4.♕xd6 b5

Black has grabbed the initiative.

1...♗d7

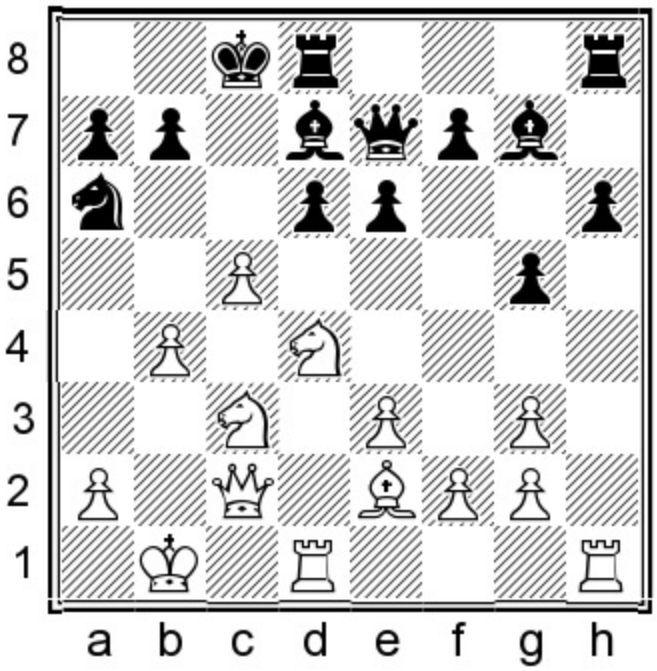
1...0-0 commits the king a little early. 2.f4, fighting for dark square control and probing the loose kingside, is positionally sound. (2.♖h5 ♗d7 3.f4↑ can also be considered.)



2.♔b1 0-0

Now the play becomes sharp, as White looks for a way to open up the kingside.

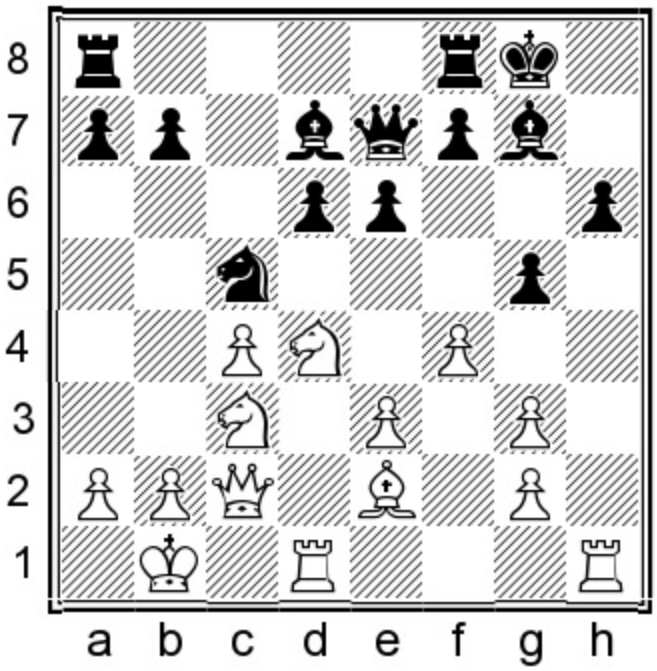
2...0-0-0? runs into an unexpected problem, based on the opposition of the black king and the white queen: 3.b4! ♘a6 4.c5!



4...dxc5 (4...♘c7 5.♘e4±; 4...♘xb4 5.cxd6 ♕xd6 6.♘cb5†+–) 5.♗xa6 bxa6 6.♘e4± This demonstrates that the queenside is not completely safe for the black king.

3.f4

3.♖h5!? is also sensible – although after 3...f5 4.g4 f4 (4...fxg4 5.♗xg4 looks good for White) I would be reluctant to endorse the computer's suggestion of 5.b4!?.



3...f5!

3...♖ac8 4.♖h5! works well, for instance: 4...f5 5.fxg5 ♗e8 6.gxh6 ♗xd4 7.exd4 ♗xh5 8.♗xh5 This looks more fun for White.

The text move reached a complex situation where both sides have various options, and the chances are roughly balanced.

Indicative Scoring for Puzzle 46

Best Move	Score	Michael's Comments
1.♘d4	10	The knight belongs here, possibly preparing f2-f4. This knight move will be played at some stage, so immediately is the most flexible choice.
1.♔b1	9	Putting the king a bit safer can't hurt.
1.♖h5	9	Doubling rooks on the h-line makes sense, as it discourages where they are.
1.g4	9	Too committal for me, as it fixes the structure and limits White's options unnecessarily, although the computer doesn't
1.♘b5	3	A mistake. Grabbing the d-pawn rebounds, as Black's pieces get time to become active. Then the sensitive dark squares on the long diagonal become a serious issue as White loses coordination.

Puzzle Commentary by Phil

I am pretty sure that most club players would opt for 1.♘b5, like I did. It looks really good, as it wins a pawn. On closer inspection, however, 1.♘b5 turns out to be fool's gold.

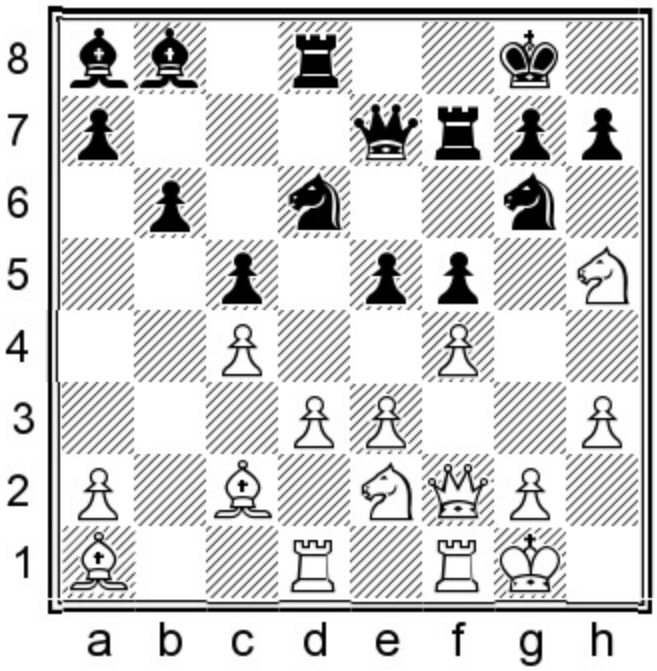
Stockfish gives half a dozen good moves here – and given enough time, everything comes up as 0.00.

Adams Insight

The long dark-squared diagonal isn't too sensitive if White keeps a compact piece set-up, and 1.♘d4 puts another barrier down that route. However, if White loses his coordination by chasing after the d6-pawn, the structural weakness on the dark squares, eyed by the bishop on g7 which then gets a clear line of sight against b2, quickly comes back to haunt White.

The position is quite sharp; Black would be happy if he had the possibility to prepare castling long and tuck the king away on b8, but there isn't time for this. Hence Black will probably castle kingside, where it won't be completely safe, but can't be targeted that quickly. White's monarch will also never be completely comfortable as the game opens up.

Bonus Puzzle 47



Black to play – Level 10

Show/Hide Solution

Bonus Puzzle 47 – A Super-GM Move

Leo Hurtado
Elo 1345

00:50 My first thought is to play 1...exf4.
02:30 There seems to be a lot of pressure on the f4-pawn. There are many pieces attacking it and many defending it.
04:45 I think I see a good move: 1...♕h4. If White plays 2.♕xh4 I can take with my knight and I am threatening to take on g2 with both my knight and my bishop on a8. This certainly looks interesting.
07:45 I don't like my knight on d6. It is not doing anything useful and I can't move it anywhere. And moving it backwards is rubbish.
1...e4 is good. If White takes it, 2.dxe4, I can play 2...♘xe4 and have a great position.
09:00 The problem is what happens if White doesn't take.
12:00 I just realized that if I play 1...e4 I free his bishop on a1 allowing it to attack my pawn on g7, which is also being attacked by his knight. So 1...e4 is not good.
13:00 The same goes for 1...exf4. Although come to think of it, 1...exf4 2.♗xg7 fxe3 might be good for me.
15:40 1...♘h4 seems reasonable. But not sure.
17:15 Maybe 1...♘h4 is the move. It attacks g2 with two pieces.
What can White do against 1...♘h4?
18:45 1...♘h4 2.g3 ♗g2, attacking the rook. 3.gxh4 ♗xf1 but then he takes my bishop and he was

won two pieces for a rook.
19:40 1...♘h4 is not that great. Although, wait: 1...♘h4 2.g3 ♗f3!? This could be an option.
20:20 I think, rather feel that 1...♘h4 is the right move.
22:00 Then again, 2.g3 and I am not achieving much.
24:00 Maybe after 2.g3, I can play 2...♘f3† 3.♔h1... Ah! And now there are many discovered checks. 3...♘d2† for example, winning the rook.
25:30 Yes, **1...♘h4** is the move. This is what I am going to play.

Evaluation: –3.4

Philip Hurtado
Elo 1924

00:08 I have the centre, or so it seems.
00:35 I want to keep the tension in the centre.
00:50 1...e4 is not good because of 2.d4 probably.
01:00 I like my bishops, especially the one on a8.
01:20 I don't see an advantage, however. I think I need to support the future opening of the e-file, targeting his knight on e2.
01:30 Oops, sorry. 1...e4 is okay. He can't play 2.d4 because c4 falls. So let me examine 1...e4 again. 1...e4 looks cool. If he takes I have ...♗xe4, and I get a good outpost. His c4-pawn is also weakened.
02:30 Another idea is 1...b5!?, practically forcing him to take.
02:45 And when I take back with my knight on b5, I will be threatening ...♘a3.
03:00 I have to be careful with him taking on e5 and putting pressure on my f5-pawn.
In any case, I feel slightly better. Maybe –0.4. The question is: what to play?
04:15 My candidate moves are: 1...e4; 1...b5!?, although maybe my knight is out of play after I recapture; and 1...♖e8.
05:00 So it's either 1...e4 or 1...♖e8. 1...♖e8 feels safer.
Yes, **1...♖e8** and see what he does.

Evaluation: –0.3

Keith Arkell
Elo 2429

Quite a sophisticated position. The bishops on a8 and b8 look okay.
The first moves to look at are 1...exf4 and 1...e4.
00:30 1...exf4 opens the position in White's favour.
01:20 1...e4 2.d4 and White gets very active. Apart from that, 1...e4 kills our bishop on a8.
I'd be uncomfortable playing 1...e4.

01:45 1...♖e8 could be a move.
02:20 White would then not want to capture in the centre, and would probably play 2.♖fe1.
03:00 1...♖e8 2.♖fe1 ♕h4 3.♕xh4 ♘xh4 4.fxe5 ♘xg2 is difficult to assess.
03:45 1...e4 2.d4 ♘xc4 3.♗b3 b5 The pawn sac looks dangerous.
Can't improve the bishops. Let's try 1...♘h4.
05:30 1...♘h4 2.fxe5 ♘xg2 (or 2...♗xg2) 3.exd6 ♕xd6 I don't quite believe this. Probably good for White.
Actually, this position is so unusual.
(Thinks in silence for a few minutes.)
07:30 My candidate moves are: 1...♖e8; 1...♘h4
09:00 1...♘h4 looks the most interesting. I'll go for that.

Evaluation: –1.4

Julio Granda
Elo 2630

In a game, intuition plays a very important factor. Here I have the feeling that Black may have "something", which conditions my train of thoughts.
02:00 I am trying to look for ways in which Black can create weaknesses. One option might be 1...e4. In the resulting lines, Black has to be careful not to take on c4 because of ♗b3.
02:30 White's pawn on g2 could also be a weakness. But I can't exploit it immediately with 1...♘h4 because my pawn on e5 falls.
This is quite an involved position. It is important to evaluate it properly. Not sure what to do.
05:30 I don't much like my knight on d6. I could take it to e8. But the knight retreats are always somewhat suspect. Still, I don't see how to make progress.
06:00 1...♖e8 is a possible move, maintaining the tension and adding pressure on e3.
07:00 After 1...♖e8 White can play ♘c3 and aim to get his knight to d5.
I am not convinced I can make progress playing positionally. I believe I have to look for something tactical.
07:30 I am encouraging myself to play 1...♘h4 and try and mount an attack. There are many pieces pointing towards the king.
08:00 1...♘h4 2.fxe5 ♘xg2 3.♘ef4! is good for White.
13:00 1...♘h4 2.fxe5 ♗xg2 3.exd6 ♖xd6 This looks promising. I prefer to sacrifice my knight on d6 than to retreat it.
14:00 1...♘h4 seems to give some good attacking chances, although after 2.fxe5 ♗xg2 3.exd6 ♖xd6 4.♘hf4! I am not so convinced.
I am looking at 1...♘h4 2.fxe5 ♘xg2 again. But can't see anything concrete. These positions are really hard for me.
16:00 I don't know if to play positionally, or if to play for the attack.

17:30 I think I have to play positionally. There is no other option. I have to settle for 1...♖e8, maintaining some pressure on e3.

1...♖e8

Evaluation: Black is probably slightly better (–0.25)

Michael Adams
Elo 2701

01:30 I am thinking about 1...♘h4. But the pawn on e5 needs to be protected.
03:00 1...♕e8 to hit the knight on h5 after I move my knight.
04:00 1...e4 2.♘c3 exd3 Then probably 3.♖xd3 ♖e8. Or 2.d4... I don't like 2.d4.
04:30 Not sure about this.
05:00 1...♘e8 could be played. The pawn on e5 needs to be protected. The knight is now ready to go to h4.
07:50 1...♘e8 and if White takes on e5, 2.fxe5 ♘xe5 and all Black's pieces are very active.
08:05 I think the best move is 1...♘e8, and Black shouldn't be worse. Black may be marginally better because of his slightly better structure.

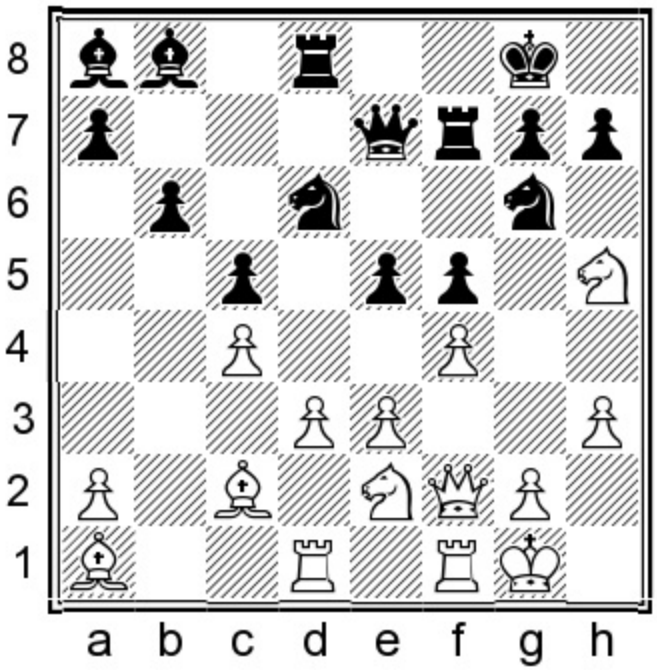
1...♘e8

Evaluation: –0.1

Detailed Analysis by Michael Adams

N.N. – Magnus Carlsen

Internet (Chess960 – blitz) 2019



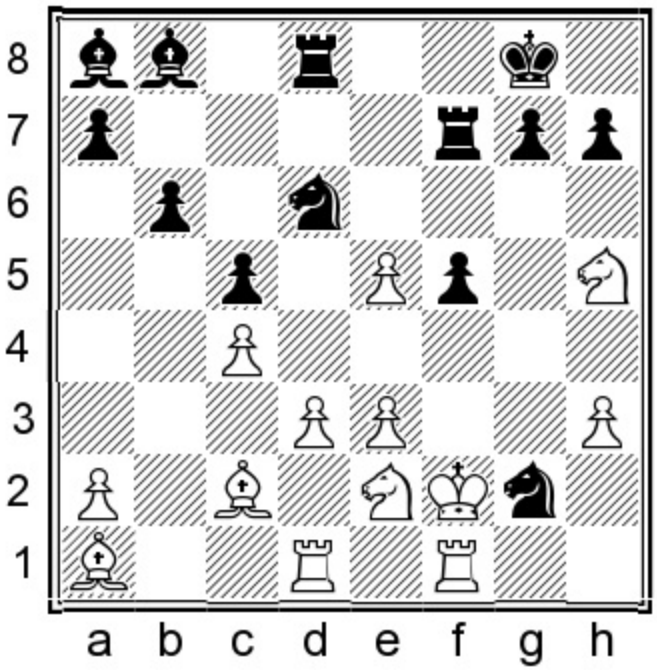
The board is packed with pieces and there is an unusual pawn structure, while the Fischer Random bishops on the queenside, aiming at the opponent's king, make this a pretty hard position to orientate. We will see that the two very strong players – in the admittedly extremely fast-paced game – sprinkle in a lot of errors over the next few moves, showing how hard it is to get your bearings in such an unusual scenario.

1...♖e8

This was the most popular choice among the participants doing the puzzles, and Carlsen played it fairly quickly. Other options:

1...b5? 2.fxe5 ♘xe5 3.cxb5 ♘xb5?! 4.♘eg3 g6?! 5.♗b3 ♗d5 6.♗xd5 ♖xd5 7.♕b2 leads to fatal problems with the black minor pieces on the b-file.

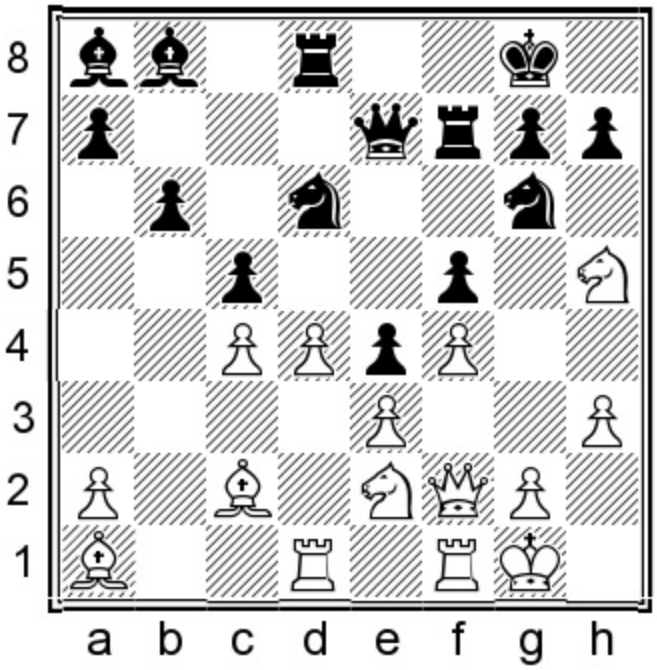
1...a6!? with the idea of ...b5 has some logic. If White responds 2.a4 the bishop is denied access to a4, so 2...♖e8 feels stronger, as the rook can no longer be harassed by the bishop.
1...♕h4? 2.♕xh4 ♘xh4 3.fxe5 ♘xg2 is well met by: 4.♔f2!±



Spoiling Black's plans and leaving White with a clear advantage.

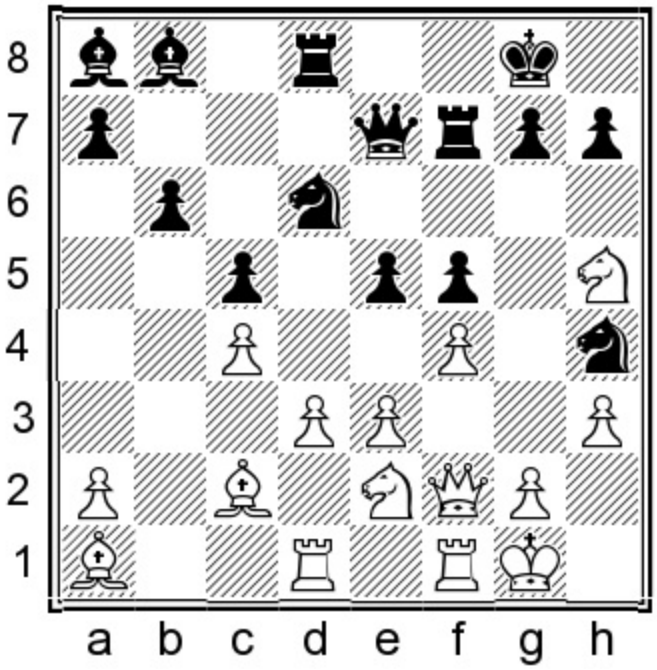
1...exf4 feels like a concession, enabling White to get active with 2.♘exf4, or even 2.exf4!? ♖e8 3.♖fe1.

I was initially tempted by 1...e4?!, but 2.d4 leaves both Black's bishops biting on granite, while the a1-h8 diagonal remains open for business for White – an especially unpleasant scenario with the white knight already securely settled on h5.



Note that 2...♘xc4? 3.♗b3 makes things even worse, as both White's bishops have been revitalized and are pointed menacingly at the kingside.

1...♘h4 was the panel's second-most-popular choice:



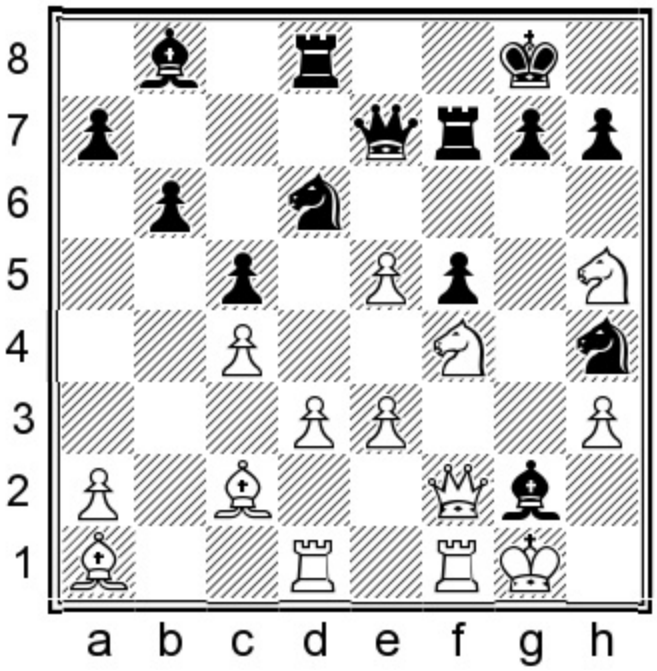
This critical move requires accurate calculation. Considering that this was a blitz game, this may have been a tricky practical option, as defence is far from easy at such a fast time control. I didn't calculate this in enough detail for this puzzle (Granda did a much better job), but my intuition was vindicated. 2.fxe5 (2.g3?? ♘f3† 3.♔h1 ♘d4†–+) and now both captures are tricky, but ultimately insufficient:

a) 2...♗xg2 3.♘ef4!

This calm move is both objectively strong and a good practical choice. Black's initiative will soon be extinguished, leaving White in control.

3.exd6?! is too compliant, even though 3...♖xd6 4.♗f6! keeps the game unclear.

3.e6!? ♖ff8 4.♗xg7 is objectively good for White, but messier than the text move.



3...♗b7

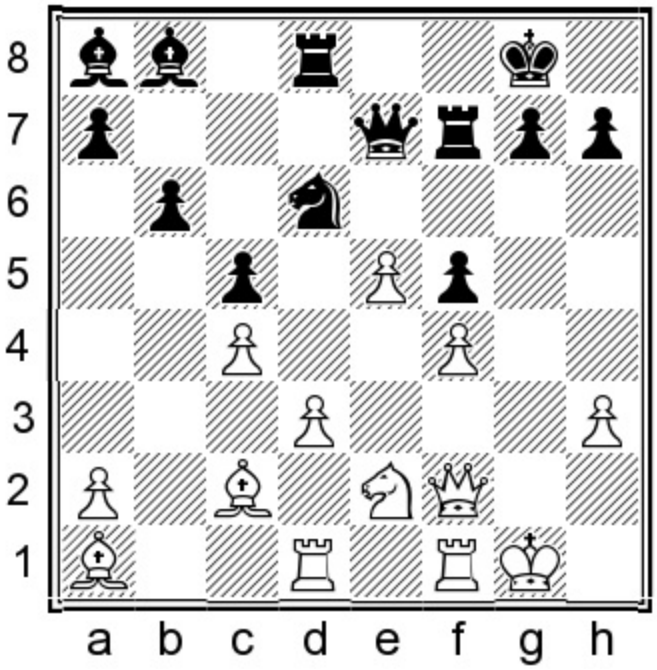
3...♗xf1 4.exd6 ♖xd6 5.♔xf1±

3...♗f3 gives White a pleasant choice between 4.♕g3± and 4.♘f6†!? gxf6 5.♕xh4±.

4.♕g3 ♘e8 5.d4

White dominates the centre while Black's pieces are pushed to the margins.

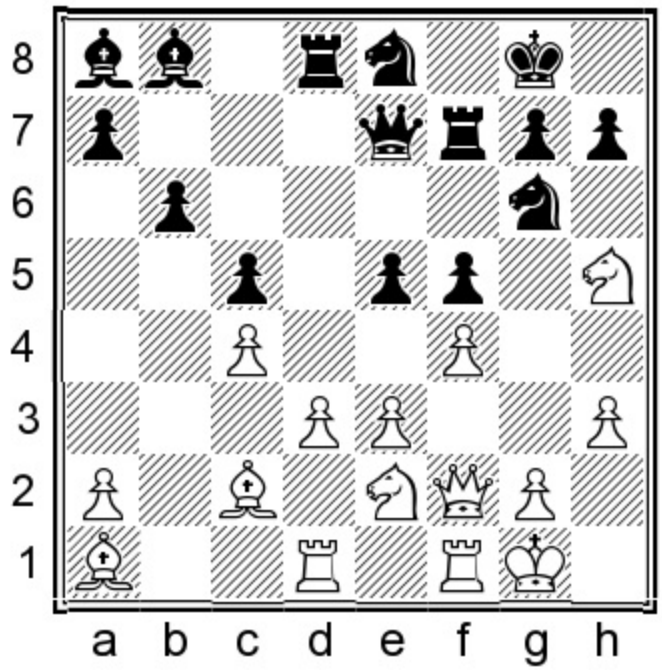
b) 2...♘xg2 3.♘hf4! This calm move, recalling the knight from h5, was spotted by Julio. (3.exd6? ♖xd6 4.♘ef4 ♘xe3 is great for Black.) 3...♘xf4 (3...♘h4 is no better after 4.♕g3.) 4.exf4 White's pawns straighten out, covering the key g5-square.



4...♘e8 5.d4 cxd4 6.♘xd4 White's more active pieces are a more important factor than the airy

kingside, and 6...♕b7 can be parried by 7.♔h2. The line turns out well for White, but is far from easy to find.

I thought 1...♘e8! was the best way to coordinate Black's pieces:



This has the advantage of opening up the bishop on b8 and the rook on d8, while also reinforcing the pawn on e5. Additionally, it provides extra cover to the sensitive point on g7, and creates the option to play ...♘f6, swapping the active knight on h5. It also gives greater freedom to play ...♘h4 – overall a pretty big win in terms of coordination. It is also worth noting that although the knight looks more active on d6, it doesn't have much forward potential there, as ideas like 1...e4 to try to create outposts for it prove flawed.

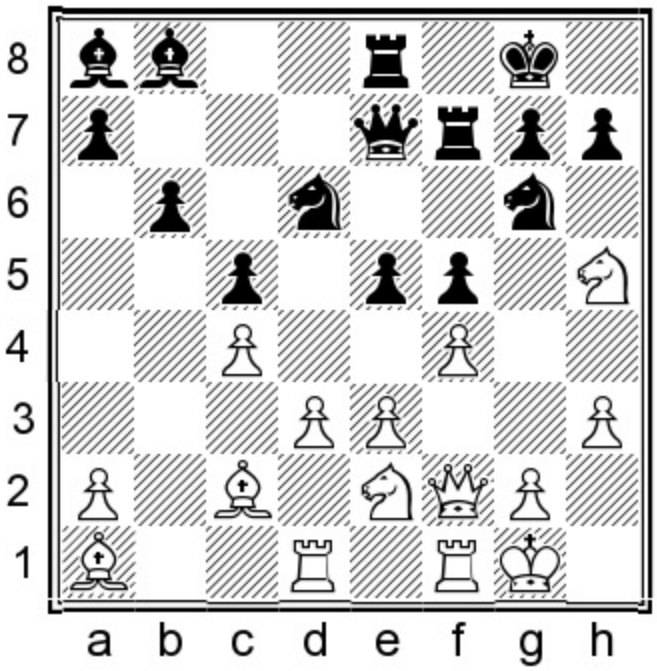
By the way, 1...♘c8 has similar ideas, and does keep the e8-square free for the rook, but the knight has little future on c8, so it is clear that this is a weaker knight retreat.

The main reason why this puzzle had to be abandoned was that the computer regards the following moves as fine, but all of them are baffling to me:

1...♘b7 seems like a worse version of 1...♘e8 to me, as I don't see why transferring the knight to b7 makes sense.

It's not clear to me that 1...♗c6 improves the bishop's position.

1...♗c7 and 1...♗b7 are pass moves: not disastrous as there is no immediate threat, but I think there are more useful ways to continue.



2.♖fe1?!

After 2.♗a4! Black has to move the rook again, quite possibly back to where it has just come from.

2...♗b7?!

Now was a good moment to take aggressive action with:

2...♘h4! 3.fxe5 ♘xg2

This is more enticing than on the previous move, as the rook on e1 is hanging. However, Magnus frequently wins smoothly at blitz by playing quick and natural moves which improve his position, disdaining time-consuming calculation. Still, the fact that he is reduced to this uninspiring bishop nudge shows it's not easy to find a constructive quiet move for Black here.

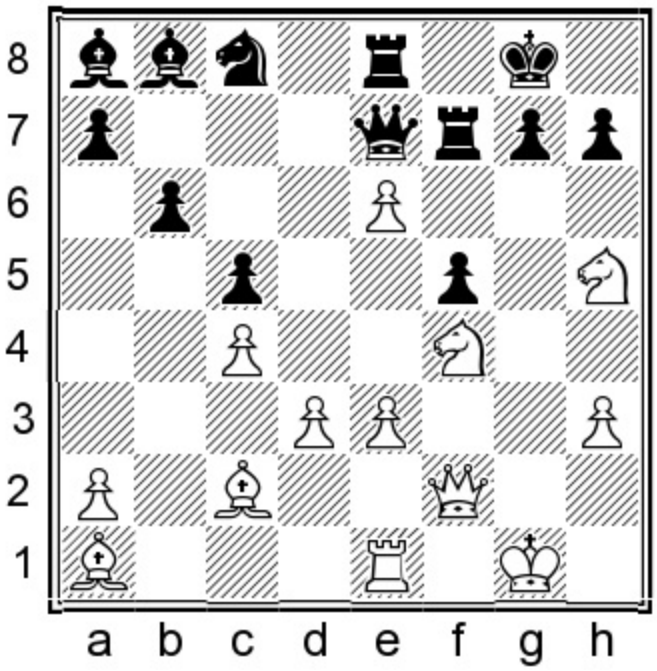
4.♘ef4!

4.exd6? ♕g5! gives Black a winning attack, for instance:

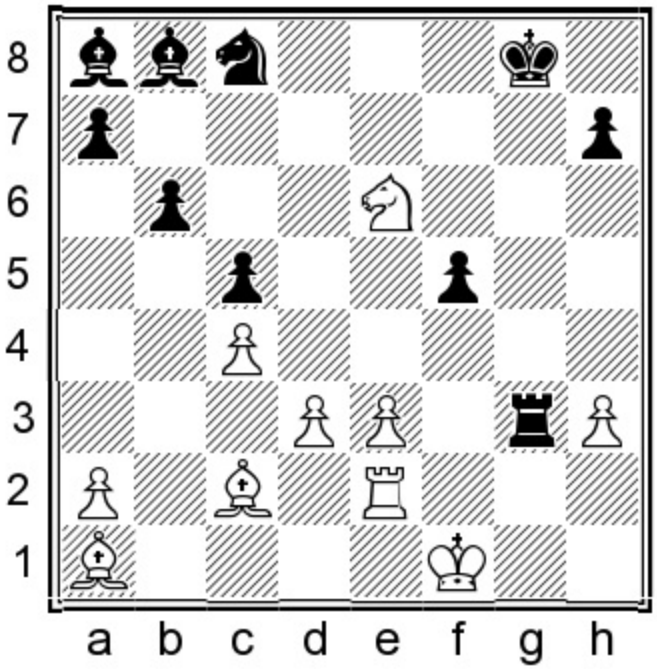
a) 5.♔h2 ♗xd6† 6.♘hf4 ♖xe3 Suddenly all the black pieces have piled in. 7.♖g1 ♖xh3† 8.♔xh3 ♕h6† 9.♔g3 ♕h4#

b) 5.♕g3 ♘xe1! and Black wins after 6.♕xg5 ♘f3† or 6.♖xe1 ♕xh5.

4...♘xe1 5.♖xe1 ♘c8 6.e6

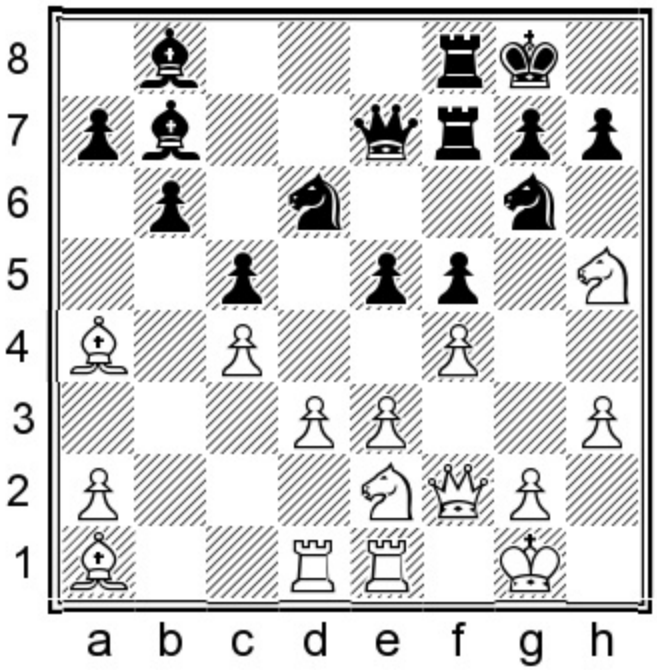


6...♕g5† 7.♔f1 ♖xe6 8.♘xg7 ♖xg7 9.♘xe6 ♕g2† 10.♕xg2 ♖xg2 11.♖e2 ♖g3



The resulting position is a bit more pleasant for Black, despite the three minor pieces clustered on the back rank (two of which have a lot of range from there!).

3.♗a4 ♖ef8



4.fxe5

4.♘c3!? was worth considering.

4...♘xe5 5.♘ef4 ♘e8?!

5...a6!? was better.

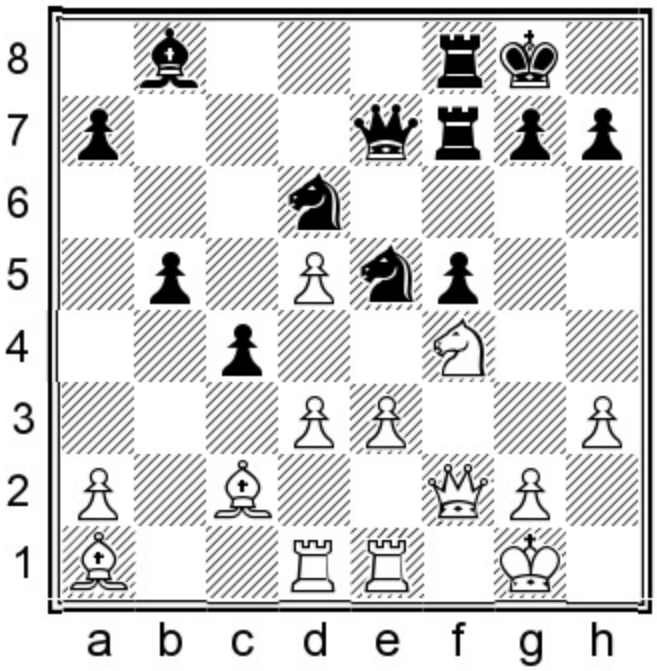
Compared to the position after 1...♘e8!, it is clear that things have not gone according to plan. Black has gone backwards while White has reinforced his position.

6.♘d5?

6.d4! was strong as the knight on e5 lacks a good retreat square. 6...♘g6 (6...♘c6 7.♕g3±) 7.dxc5! Black has problems after 7...♕xc5 8.♘e6 or 7...bxc5 8.♖d7.

6...♕d8?

A better idea was 6...♗xd5! 7.cxd5 when Black will play ...c5-c4, creating a square on e4 for his knights to use. For instance: 7...♘d6 (or 7...♘f6 8.♘f4 c4) 8.♘f4 b5 9.♗c2 c4

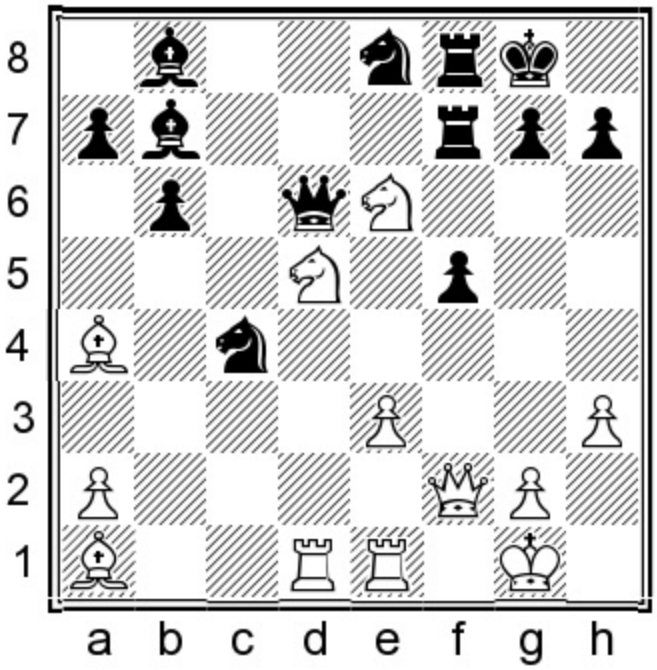


10.dxc4 ♘exc4 11.♘e6?! ♘e4 12.♕f3 ♕d6→

7.♘hf4 ♕d6 8.d4± ♘xc4

8...♘d7 was the lesser evil.

9.dxc5 ♕xc5 10.♘e6 ♕d6



Now White played 11.♘df4 with a winning position, although Magnus later flagged his opponent a rook down.

11.♘f6† also works.

Indicative Scoring for Puzzle 47

Best Move	Score	Michael's Comments
1...♘e8	10	This move really helps Black's coordination. It was my own choice and I explained why I prefer it to the other moves, but you could make a good case for many moves scoring equally here.
1...♖e8	9	Played by Magnus!
1...a6	9	Prepares ...b5, so a handy waiting move.

Puzzle Commentary by Phil

When I embarked on this project I didn't know what to expect regarding Michael's puzzle-solving ability. I did not expect him to find this one at all easy, as the position stems from a chess 960 game and it is quite irrational in nature.

You might have heard GM Danny Gormally during his very entertaining live commentary at the British Championship occasionally mention "This is a typical Mickey-esque move". For those of you who do not understand the full meaning of this comment, here is a great example of one such move. It is a fine, quiet, unassuming move that extracts the maximum positional value from a seemingly balanced position. A truly Super-GM move.

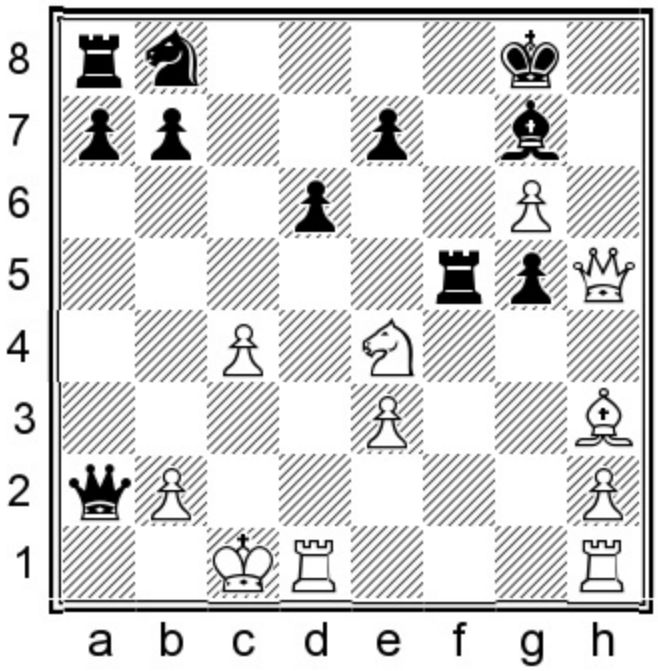
Adams Insight

It's a pity that this extremely interesting position only arose in a blitz game, rather than a time limit where the players would have had a little more time to consider their options. Working out the merits of 1...♘h4 is a challenge, but those who realized that the tactics don't work out were faced with another problem: which positional move is the best way to improve Black's prospects?

Often the side that comes out on top in such positions will be the one that manages to get their bishops to exert a greater influence on proceedings, with two of them looking down a long diagonal without pawn barriers. 1...e4? is a good example of how not to achieve this, and an instructive mistake, after which Black's bishops get blunted whilst White's rule the roost.

The knight on d6 is a bit awkwardly placed, and Black has to decide whether to accept the slight concession of moving it backwards to regroup, or try to live with it on d6. I preferred the first option, mainly because it resolves the issue and gives greater clarity as to how Black should follow up. In the game, the knight continued to get in the way on d6 over the next few moves, so biting the bullet and retreating it immediately seems to me to be the most sensible practical decision.

Bonus Puzzle 48



White to play – Level 6

Show/Hide Solution

Bonus Puzzle 48 – Out of Despair

Andrew McCumiskey
Elo 2017

My king is rather exposed. He has all kinds of threats with his queen: 1...♕a1†, 1...♕xc4†, 1...♕xb2 mate.

00:30 My queen also looks threatening, e.g. 1.♕h7†.

00:45 Overall we have five pawns each. Opposite-coloured bishops. So, if I can survive the attack it's not too bad.

01:30 I could sac my queen: 1.♕h7† ♔f8 2.♕xg7† ♔xg7 3.♗xf5. Then I would have rook and bishop against queen. I am not sure this is good though.

02:00 I have to stop Black's mate.

1.♘c3 could be a good move, attacking his queen. 1.♘c3 ♗xc3 2.bxc3 and what has he got?

02:30 He's got several checks, but... Ah! He has a ...♖f2†.

04:00 I have mating threats also. Oh! 1.♘f6† suddenly looks strangely good here. No, No. It's not going to work.

05:00 I have a 1.♖d4 sac. But he has 1...♕a1†.

06:00 1.♘c3 ♗xc3 2.bxc3 ♕a1† 3.♔c2 ♖f2† 4.♔d3 and he has no further checks. And I am threatening mate.

07:45 Actually, Black doesn't have to take my knight. He can start with 1...♕a1† and then take my b-pawn. So 1.♘c3 doesn't work.
08:00 What about 1.♕e2... That seems like a solid move.
09:30 1.♕e2 defends the pawn and covers c4. He can give a check, but that is fairly meaningless. And his rook is in trouble too.
10:30 Let's look at 1.♘f6† again. 1.♘f6† ♖xf6 2.♕h7† ♔f8 No. That doesn't bring any glory.
11:00 I think 1.♕e2 is probably the best move. Oh dear! I am talking rubbish here! He can play 1...♕a1† and take my b-pawn!
I can do 1.♖d4.
1.♖d4 ♕a1† 2.♔c2 ♕xh1 But my other rook is still threatened. No. This looks horrible.
11:30 I am running out of candidate moves here, Phil.
13:00 1.♖d4 ♕a1† 2.♔c2 ♕xh1 3.♗xf5 and we are even. This is not too bad, actually.
Yeah. I have to go wild here with 1.♖d4. I've convinced myself.
15:00 1.♖d4
"Your evaluation?"
Very, very unclear. Depends who I am playing. I have massive threats though. I'd say winning for White.

Evaluation: +3.0

Keith Arkell
Elo 2429

00:20 Another complex position. Black has just played ...♕xa2.
00:50 Just a random thought. Completely bonkers. My first thought is 1.♘f6†, as it stops the forced mate.
What about if I just defend crudely against the mate? With say 1.♖d2?
01:50 1.♖d2 ♕xc4† 2.♖c2 ♕xe4 3.♖c8†
1.♖d2 looks possible. 1.♘c3 looks worse because of 1...♗xc3.
03:20 Actually, no: 1.♘c3 ♗xc3 2.bxc3 ♖f2? 3.♗e6† leads to mate.
04:00 But 1.♘c3 ♕a1† 2.♔c2 ♖f2† and Black gets to me first.
The candidate moves so far are: 1.♖d2, which seems to defend; 1.♘c3, which feels shaky; 1.♕e2, which doesn't work either.
Let me try 1.♘f6† again. 1.♘f6† ♖xf6 I bought myself a tiny bit of time. 2.♖hf1 ♖xf1 3.♗e6† ♔f8 4.♖xf1† ♔e8 looks unclear to me.
05:45 I don't believe in it. There is nothing here for White.
06:30 1.♘f6† ♖xf6 2.♕h7† ♔f8 3.♖hf1 But there is 3...♕xc4†. I am starting to lose interest in 1.♘f6†.
07:30 Let me go back to 1.♘c3. Black doesn't have to take on c3 with his bishop. 1.♘c3 ♕a1† 2.♔c2 ♖f2† 3.♔d3 ♕xb2 Now we need to strike quick, but there is nothing. White is in trouble.

Another totally different idea: 1.♖d4 I've tried everything else, so 1.♖d4 to buy time.
08:00 1.♖d4 ♗xd4 Oh! Now 2.♘f6†! works.
08:30 You know when you see a move for the first time and it feels right? 1.♖d4 is one of those moves.
09:00 1.♖d4 is my move.

Evaluation: It's difficult to evaluate. I don't know if I am lost or winning. I am going to go for a high evaluation though, as Black cannot give away that bishop. (+4.0)

Michael Adams
Elo 2701

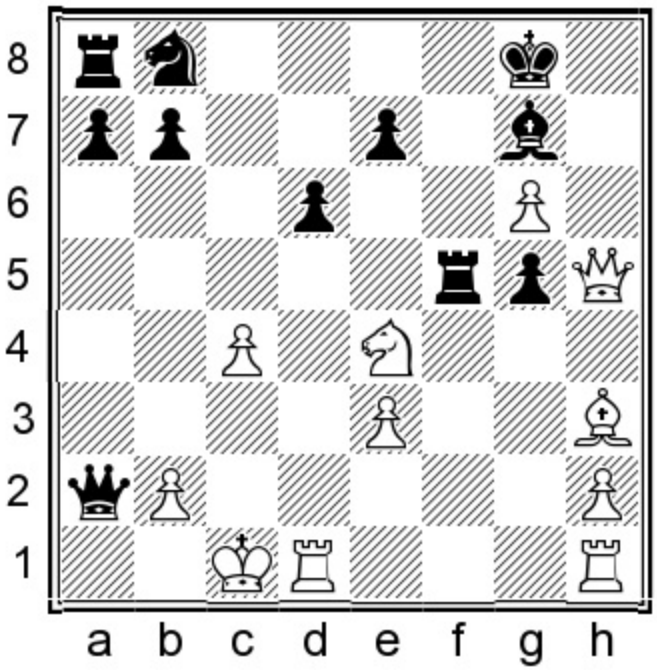
00:20 Looks like there is a strong threat of 1...♕xb2 mate. So we have to see the options.
01:00 Black's rook on f5 is hanging.
01:30 1.♔d2 ♕xb2† 2.♔d3 doesn't look too hopeful.
02:20 If 1.♘c3 ♗xc3 2.♕h7† ♔f8 3.g7† ♗xg7 4.♕xf5† ♗f6 and White has run out of checks.
03:00 I have to defend b2 somehow. 1.♖d2 ♕a1† 2.♔c2 ♕xb2† 3.♔d1 could be a possibility.
04:30 1.♘c3 ♕a1† 2.♔c2 ♖f2† 3.♖d2 ♖xd2† 4.♔xd2 ♕xb2† looks like bad news.
04:45 1.♕e2... but again, 1...♕a1† is a problem.
05:00 I also need to consider 1.♖d4 and 1.♘f6†.
05:30 1.♘f6† ♖xf6 probably doesn't work.
07:00 So 1.♖d4 is the only other move which I haven't checked. 1.♖d4 ♗xd4 looks fairly good for White. 2.exd4 ♕xc4† 3.♘c3 wins for White.
08:30 1.♖d4 ♕a1† 2.♔c2 ♕xh1 3.♗xf5 is winning. Black runs out of checks and White's king is quite safe.
09:00 1.♖d4 ♘c6 2.♗xf5 ♘xd4 3.exd4 ♕a1† 4.♔c2 ♕xh1 5.♘xg5 ♕g2† 6.♔b3 and there are no more checks.
11:00 All other moves seem to be bad. So I think **1.♖d4** is the best move.

Evaluation: Not sure of the assessment. But White is doing well, as Black is behind in development and the position is very tactical. I would give +3.

Detailed Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



A crazy position with the board on fire, both kings are wide open, pieces and pawns are hanging, and powerful opposite coloured bishops sweep different sectors of the board. The immediate matter in hand is that Black is threatening mate in one, the pawn on c4 could also be captured with check next turn. Black's bishop on g7 is extremely effective in both attack and defence, but his undeveloped queenside proves the major issue. Calculation and intuition are required to find the solution.

1.♖d4!

Once seen, this feels the right idea, and several players quickly realized it was correct once they came up with the concept. However, this is a position which is especially disorientating when you come to it cold, and both Keith and I took a while to work it out. Black's bishop is so valuable in a defensive role it can't really afford to move, even to capture a rook, so the text move is the simplest and most effective way or preventing mate on b2 while also securing the pawn on c4.

1.♘f6†?? was worth checking as a candidate move, but 1...♖xf6–+ leaves White with nothing, as several players noted.

1.♘c3? is bad in view of 1...♕a1† 2.♔c2 ♖f2†.

1.♕e2? ♕a1† 2.♔d2 ♕xb2† also favours Black.

1.♖d2? ♕a1† 2.♔c2 ♕xb2† 3.♔d1 ♕b3† only leads to a perpetual.

1.♔d2?! ♕xb2† 2.♔e1 ♗c3† is much less convincing than other options.

Once you turn on the machine it points out some computer-style winning solutions that I should mention. Still, they appear highly counterintuitive to me, as they allow White's king to pinball round

the board – and indeed the engine does not rate these options as highly as the main solution. Nevertheless, Black's lack of firepower due to his lack of development will ultimately tell against him.

Inserting 1.♕h7† ♔f8 unnecessarily limits White's options, but 2.♖d4! (or 2.♖d3!?) is still winning.

1.♖d3!?

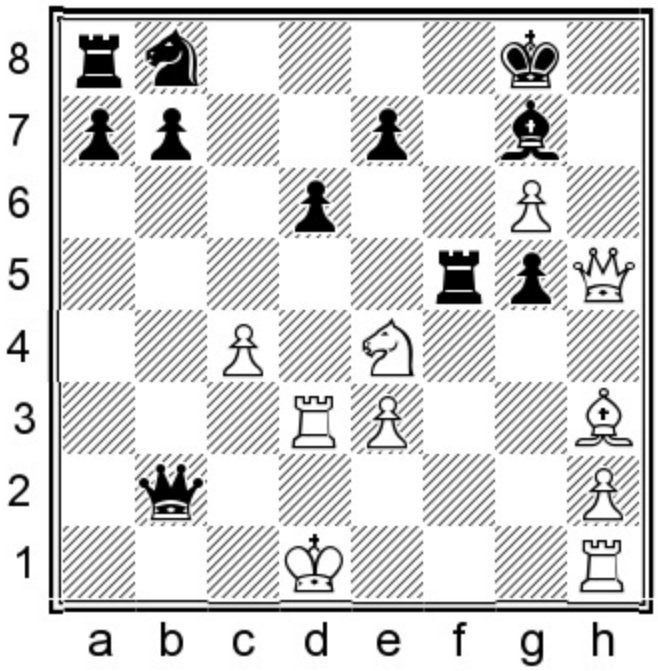
This allows White's pieces to shield the king on light squares, ensuring that the bishop on g7 will no longer operate so effectively.

1...♕a1†

1...♕xb2† 2.♔d1 transposes.

1...♕xc4† 2.♖c3! ♕xe4 (2...♗xc3 3.bxc3+–) 3.♖c8† ♖f8 4.♕h7#

2.♔c2 ♕xb2† 3.♔d1



White's king is heading for e2, where it will receive good support from White's pieces, due to the firm control over all the key squares on the d- and f-files.

3...♕b1† 4.♔e2 ♕xh1 5.♗xf5+–

White's king is safe while Black's is defenceless.

1.♖xd6!?

Even this move works, by clearing the path for White's king to flee to the kingside.

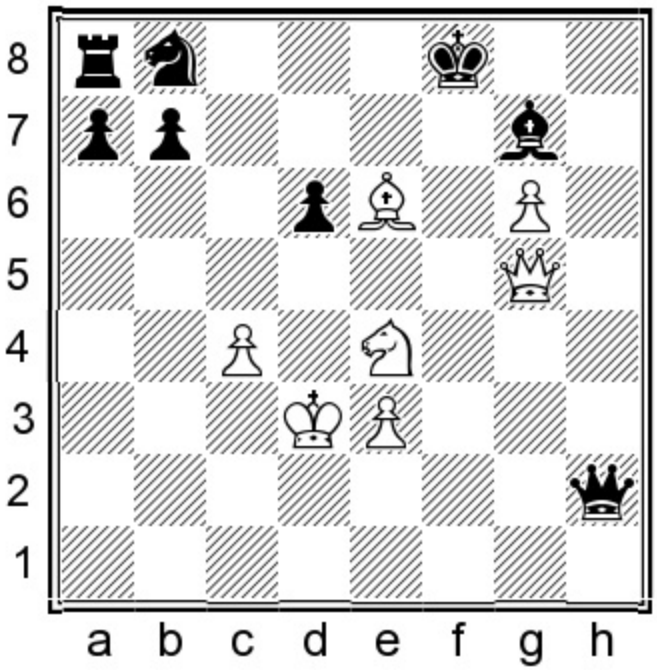
1...♕xb2†

1...exd6 2.♗xf5 ♕xb2† 3.♔d1 transposes.

2.♔d1 exd6

2...♕b3† 3.♔e2 ♕xc4† 4.♖d3 wins.

3.♗xf5 ♕b1† 4.♔e2 ♕xh1 5.♗e6† ♔f8 6.♕xg5 ♕xh2† 7.♔d3



7...♘d7 8.♕f5† ♗f6 9.♗xd7

White wins.

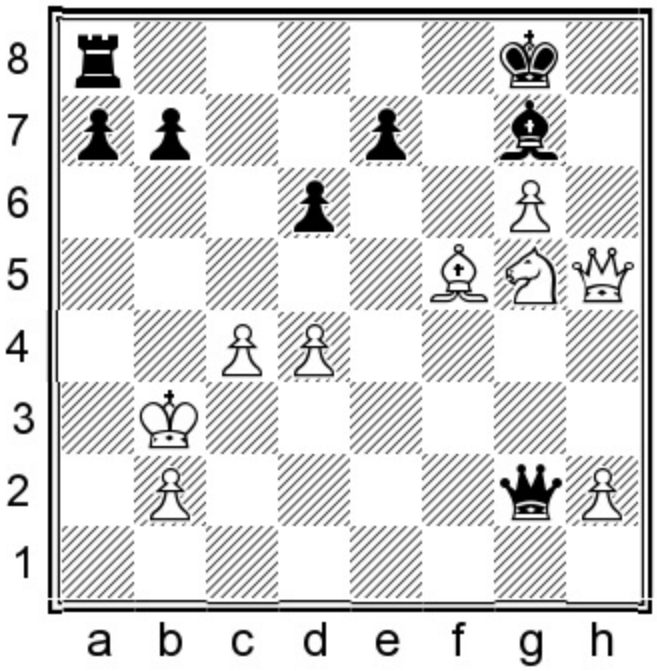
1...♗xd4

Black loses quickly after 1...♔f8 2.♗xf5+–;

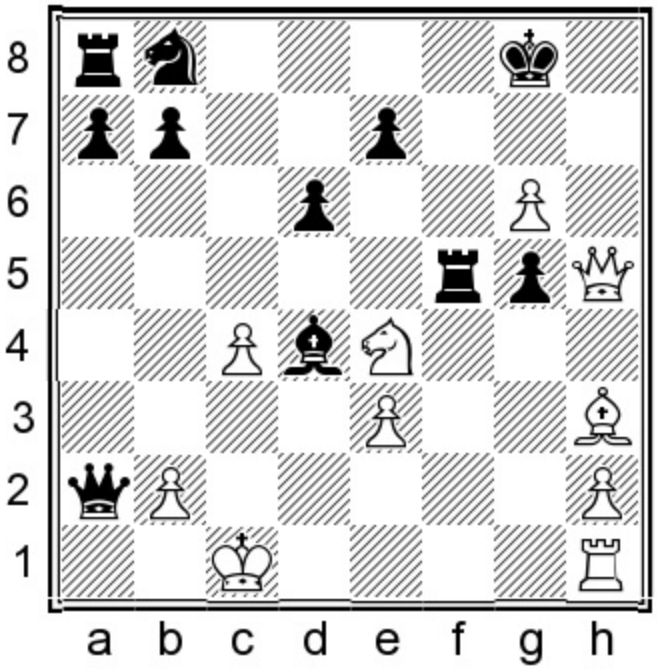
or 1...♘d7 2.♕h7† (2.♗xf5+–) 2...♔f8 3.♗xf5+–.

1...♕a1† 2.♔c2 ♕xh1 3.♗xf5 Swapping White's least active piece for the rook on f5 is unsurprisingly not helpful for Black. Now the queen is stuck on h1, while White's king is happy enough. 3...♘c6 4.♖d1 ♕g2† 5.♖d2+–

1...♘c6 is more logical, attacking the rook while developing. Nevertheless, White wins after: 2.♗xf5 ♘xd4 3.exd4 ♕a1† (3...♕xc4† 4.♘c3+–) 4.♔c2 ♕xh1 5.♘xg5 ♕g2† 6.♔b3



Black is unable to generate threats in time: 6...b5 (6...a5 7.♘e6 a4† 8.♔a2 a3 9.♕h7#) 7.♗e6† ♔f8 8.♘h7† ♔e8 9.♕xb5† ♔d8 10.♕d7#



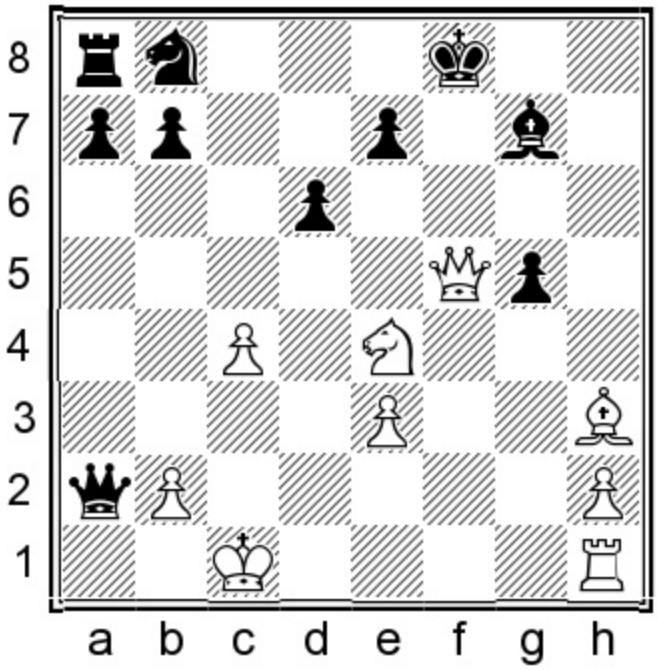
2.♘f6†!

This rather beautiful interference, spotted by Keith, is the quickest and prettiest way to finish. White forces mate in a maximum of three more moves.

A winning alternative is:
2.♕h7† ♔f8 3.g7† ♗xg7 4.♕xf5†

If you failed to spot the forced mate then this might be simpler line you could calculate more effectively. White continues to give checks and regains material while continuing the attack,

making this pretty low-risk.



4...♗f6

4...♔g8 5.♕e6† ♔h8 6.♕c8† ♔h7 7.♘xg5† ♔h6 8.♘f7† ♔h7 (8...♔g6 9.♕f5#) 9.♗f5# 5.♘xf6

Black get a reprieve from the checks, but now the queen is really fighting a lone battle.

5...♕xc4†

5...♕a1† 6.♔c2 ♕xh1 7.♘d7† ♔g7 8.♕f8† mates.

6.♔b1+–

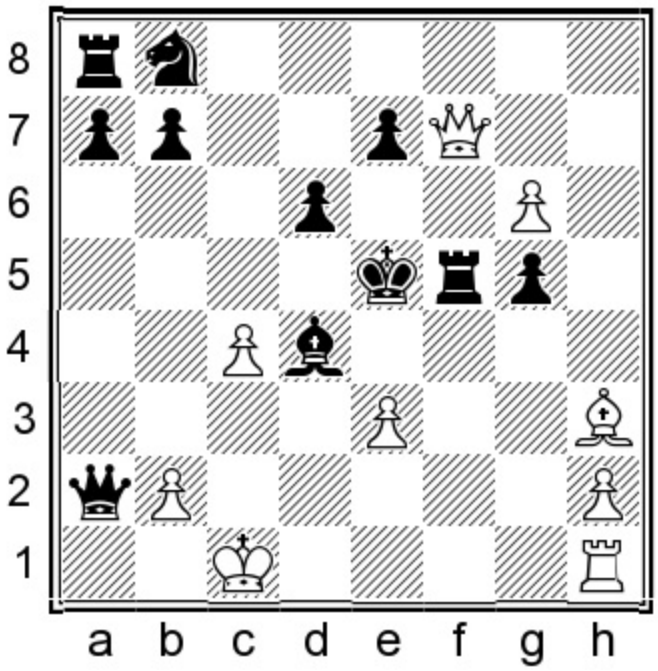
White wins easily enough. Still, the knight check, interfering between the defenders, leads to a faster and more elegant finish.

2...♔g7

2...♗xf6 3.♕h7† ♔f8 4.♕f7# and

2...♖xf6 3.♕h7† ♔f8 4.♕h8# are the alternative finishes, where either the rook or the bishop interfere with the defence.

3.♕h7† ♔xf6 4.♕f7† ♔e5



White has a pleasant choice between 5.♕xf5# and 5.♕xe7#.

Indicative Scoring for Puzzle 48

Best Move	Score	Michael's Comments
1.♖d4	10	Clearly the most natural and convincingly winning move, blocking Black's influential bishop.
1.♕h7†	3	Still winning, but inserting this check so soon isn't helpful, and leaves White needing a precise follow-up.
1.♖d3	3	The king can flee to safe light squares, as White's better placed pieces come to the monarch's defence, but it's scary stuff.
1.♖xd6	3	A real computer concept, leading to utter chaos. However, White's better development is sufficient even after this.

Puzzle Commentary by Phil

It seems desperation sharpens the mind. Here White is faced with the deadly threat of ...♕xb2 mate, and the obvious 1.♕h7† seems to lead nowhere after 1...♔f8. The beautiful move 1.♖d4! is often found out of elimination, when all other moves seem to fail. Although the computer finds another three moves that also win, I have not yet seen a participant who has chosen these unnatural solutions where the black queen is allowed to take on b2.

I, of course, was unable to find 1.♖d4 during my blitz game, and ended up losing. However, given enough time, more players than I expected were able to find this brilliant move.

Adams Insight

A fianchettoed bishop is often useful in both defending your own king and attacking your opponent's, as Dragon players will testify to. Here Black's position is hanging by a thread, but it only unravels once the bishop is forced to move, or exchange itself, when it no longer protects the black monarch. Better development is immensely valuable here: Black simply doesn't have enough pieces in play to be competitive once the powerful bishop is neutralized. After finding the initial move the position is transformed, and any exchanges emphasize how the redundant pieces on the queenside won't be in time to help Black.

Part IV

Conclusions from the Puzzles

Chapter 4.1

The Candidate Move

by Philip Hurtado

Did you know the chances of an average club player beating a Super-GM in a tournament game are virtually zero? Even in a simul, or with time odds, it is nearly impossible for a club player to beat a top GM. The biggest reason: *the candidate move*.

Candidate moves are the shortlist of moves a player mentally selects in any given position. Thanks to their experience, pattern recognition and intuition, top grandmasters quickly narrow down their candidate moves to a single best move; sometimes two or three if the position is rich in possibilities. In any given normal position, if you see a top grandmaster thinking for more than one minute, rest assured that he has almost certainly already found the best move, and is now focusing on the finer details of the position.

When I analysed the data from the experiment, I discovered the following:

* The average time it took Michael Adams to spot the best move in a standard puzzle is 67 seconds – just over a minute. He dedicates the rest of his thinking time to analysing the consequences of playing the move. (See Chapter 4.2 for a more detailed discussion about the way top players allocate their time.)

* As you would expect, there is an inverse relationship between rating and time taken to spot the best move – meaning that as you move down the rating list, players take increasingly longer. Strong club players in the 1900-2100 Elo range take on average 305 seconds – just over five minutes – to spot those same best moves. This assumes the strong club player actually spots the best move in the first place – which, by the way, only happens in about 75% of the cases.

"Okay. So what about if I play the GM in weird irrational positions?" Good question. Interestingly, when the position is irrational – meaning particularly complex and/or unusual, meaning the best move is harder to find (Puzzle 8, for example), then the average time needed by the GM to spot the best move goes up to 264 seconds – around four-and-a-half minutes. Four times longer than they normally take!
However, here is the bad news. In complex or unconventional positions, the chance of a strong club player finding the best move drops to 40%. Moreover, even if they find it, it will take them between eight and ten minutes to spot it. That is around twice as long as it takes the GM to find the move.

This might give you an idea about how to maximize your chances of beating a GM if you play them in a simul. If you manage to steer the game into a complex, irrational middlegame where the GM has not got the time available that they need to find the best move, it could pay dividends.

On a related note, it would be interesting to see a GM play a chess 960 simul against strong club players. My guess is that in this event, the strong amateurs would score more heavily than usual, as the unfamiliar starting position of the pieces is likely to steer the game away from conventional structures, making it harder for GMs to draw on their pattern recognition and chess culture. It would certainly be hard work for the GM – definitely an experiment worth considering.

Chapter 4.2

The Art of Falsifying

by Philip Hurtado

"A strong player requires only a few minutes of thought to get to the heart of the conflict. You see a solution immediately, and half an hour later merely convince yourself that your intuition has not deceived you."
– David Bronstein

I noticed very early when working with Michael Adams, and also with Julio Granda, that they both spent a surprisingly large amount of time questioning their move.

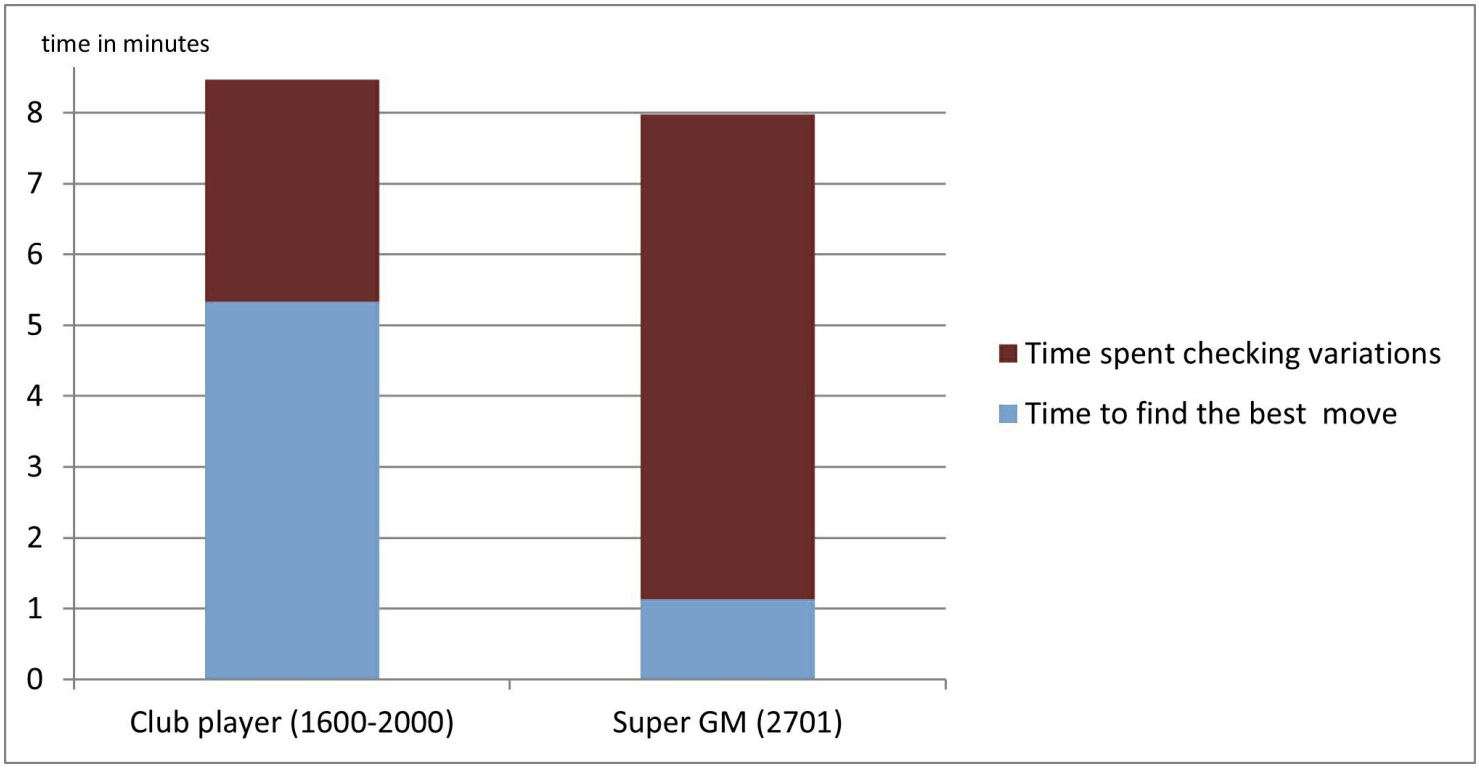
Michael spends approximately 85% of his thinking time scrutinizing the possible variations arising from playing his chosen move. Roughly speaking, if it takes Michael one minute to find the best move, he will spend a further seven minutes thinking about the consequences of playing that move. This finding from our puzzle experiment would likely be a little different during a practical game for various reasons. For instance, for this book players were required to give an assessment, which wouldn't be the case during a game.

Still the differences between players of different strengths is striking: there is a stark contrast to the 38% of thinking time a typical club player devotes to checking his or her best move. A club player will typically find the best move in approximately six minutes, and then spend a further two or three minutes checking the variations.

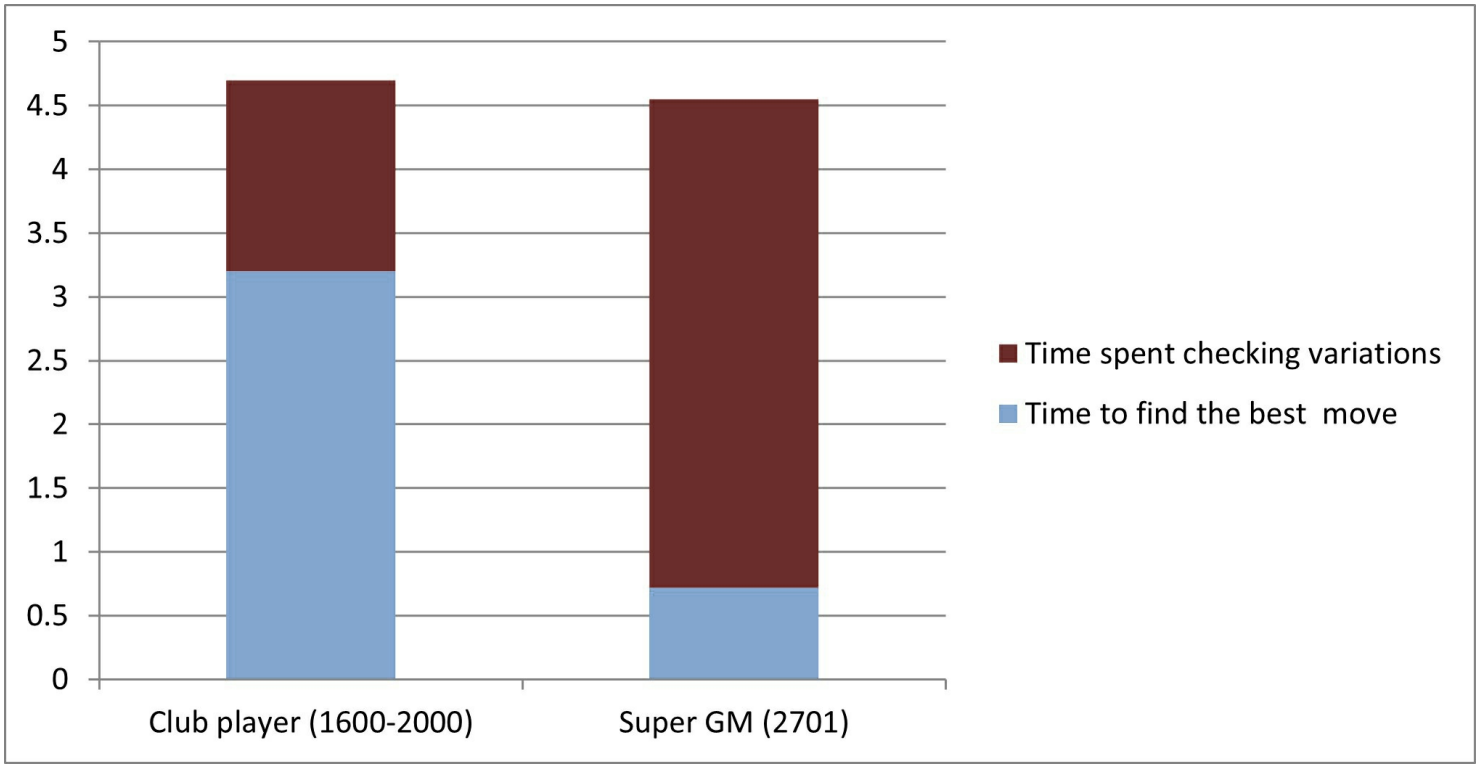
See graph 4.2.1.

When I looked at the data it was obvious that there was an enormous difference in how lower-rated players and top-rated players distribute their thinking time. At first, one may think that the reason club players devote less time to checking variations is because they need more time to find the best move in the first place, and hence have little time left for checking the variations. This is clearly part

of the explanation. However, apart from the fact that players were not constrained by a time limit in our experiment (it was left to them to take as much time as they considered necessary, as in a real game), I noticed a similar time distribution even when club players found the correct move early in their thought process:



4.2.1

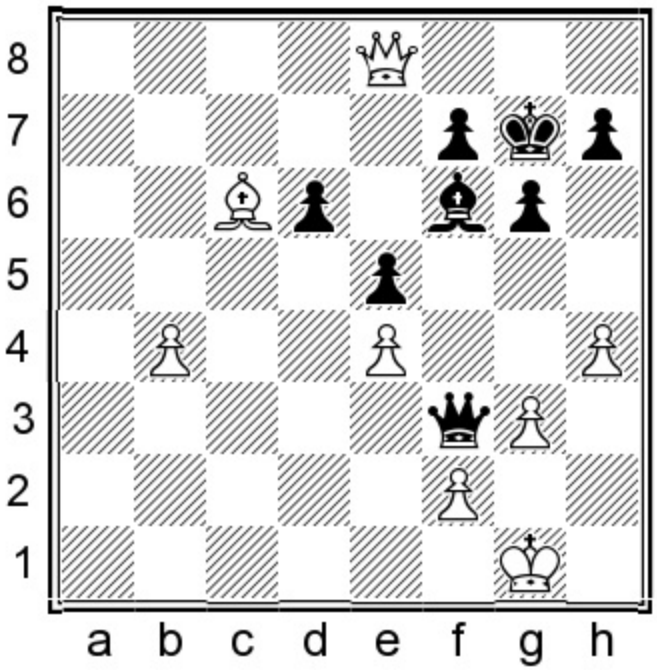


The graph above shows that even when club players settle on the correct move relatively quickly, they still spend less time checking the implications. Note that the requirement to provide an assessment of the position after their move would have encouraged further contemplation once the move choice had been completed. With Michael, on the other hand, even when we take the data from the ten puzzles he solved in the quickest time, we can observe that he still devotes a considerably greater amount of time to checking the variations before playing the move.
I wondered what the reason for this could be. Why do top GMs keep on analysing the move, if they have already figured out it was the best move? What else are they thinking of?

Here is the secret. They are actually looking at ways to refute their own move!

It was not until Michael mentioned it to me that I realized this was precisely what he and Julio Granda were doing all along when they were verbalizing variations. I was so focused on writing down the accuracy of the variations, and the time it took them to call them out, that I did not realize those variations were in fact the most critical responses to their candidate move.

For club players, myself included, once we find what we believe to be a good move, we tend to look only at those lines that positively reinforce our goals. Puzzle 13 is a classic example:



White to play

In the example above, countless club players will consider the logical move 1.♗d5 and then look at variations that reinforce their perception, namely that the move is devastating. Top players, on the other hand, will spend most of their time looking for the exact opposite: variations that refute their move. And indeed, if you look hard for Black's response, regardless of your chess strength, you will find the refutation 1...♗xh4!.

Michael Adams obviously applied this thought process over the board, which then helped him find the much stronger 1.♕d7! to nullify Black's idea.

This phenomenon of striving to refute your own move is so prevalent amongst top GMs that I needed to learn more about it. Michael mentioned that it is sometimes referred to as "falsifying" (to falsify is to prove wrong), a term originally coined by British philosopher Sir Karl Popper, and that Michael had come across when reading Nassim Taleb's best-selling book *The Black Swan*.

Falsifying is a technique whereby you formulate a conjecture, and then start looking at the details that would prove it to be wrong. In chess, this would be akin to formulating a plan, and looking at all the possible ways in which it could be flawed. This method is the reverse of searching for confirmatory instances, which is by far the most common amongst club chess players.
In his book, Nassim mentions, "If you think falsifying is easy, you will be disappointed – few humans have a natural ability to do this." The book explains that humans have a natural tendency to look for corroboration, but that there are a few exceptions involving experts in their specialist areas. Among them, chess grandmasters: "Chess grandmasters, it has been shown, actually do focus on where a speculative move might be weak; rookies, by comparison, look for confirmatory instances instead of falsifying ones."

This is exactly what I observed every time I showed Michael a puzzle. He would narrow down the solution to a couple of candidate moves, and then test each candidate move looking for a point of failure. Another interesting observation that I want to point out is that Michael could arrive at the candidate moves either by intuition or by logic, depending on the position. For example, in the position above, I am sure that 1.♕d7 was not one of his first candidate moves and that he arrived at it by sheer logic after finding out why 1.♗d5 failed. And I am equally sure that once he found 1.♕d7 he did not play it immediately, and that he probably spent at least double the amount of time trying to falsify the move as the time it took him to think of the move.
How can I be so confident of this, you may ask? I know because I also tested the puzzle with GM Julio Granda, who has a very similar thinking process to Michael's, and who scored equally well in the puzzle-solving experiment. Looking at Julio's solution to the puzzle, we can reconstruct how Michael arrived at the move and played it over the board. Let's review Granda's thought process and notice how he immediately starts falsifying each of his candidate moves.

00:25 The most natural move is 1.♗d5, but Black can play 1...♗xh4 and get a perpetual. So we have to look at other options.
00:50 1.♗d5 ♗xh4 2.♕xf7† leads nowhere after the exchange of queens.
01:30 What other move can I play? It seems this position stems from a Sicilian. I am now thinking of a possible good move: 1.♕d7!
02:00 This removes the option of Black checking me on g4. And now the threat of 2.♗d5 is very strong.
02:30 Let's see what happens after 1.♕d7 ♔f8. Now I simply play 2.b5, and Black is against the ropes.

02:50 So Black's only try is 1.♕d7 g5.
05:00 1...g5 is a desperate attempt, but does complicate matters a bit. After 2.hxg5 Black staves off the pressure. And after 2.h5 he has 2...♕d1† and ...g4.
06:00 1...g5 does complicate matters.
06:45 Still, the move is 1.♕d7.

Evaluation: +1.3

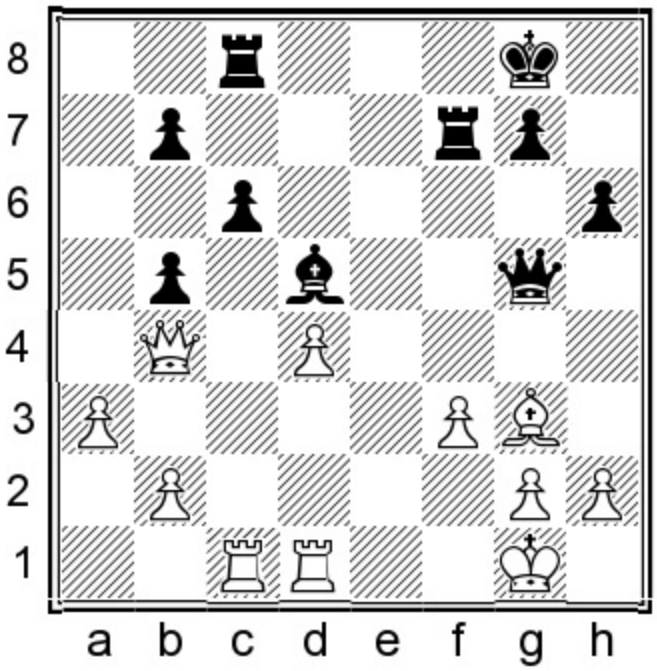
Granda's thinking time distribution when solving Puzzle 13 was similar to that of the Super-GM column of figure 4.2.1 above. Having found the best move in a minute-and-a-half, he still spent a further five minutes attempting to falsify it. Only after proving that there is nothing wrong with it does he actually play it.

Now that you know what falsifying is and are more aware of it, you may wish to re-read the solutions and observe how the top players participating in this experiment applied it, knowingly or not, to each and every puzzle they solved. You will also have a better understanding of why Super-GMs sometimes take so long to play a move that might seem relatively obvious to us when we follow their games online.

Conclusion

I will refrain from adding any more tables and graphs to this section, but it's worth mentioning that I went into much more detail analysing the relevant data using specialized statistical software, and found that there is a linear relationship between falsifying and Elo. In other words: **there is a direct correlation between a player's strength and the amount of time and effort they put into falsifying their move.**

When I looked at the times attached to Michael Adams' live comments and compared them to the other players, it became clear that he exhibited by far the largest proportion of thinking time devoted to falsifying. A good example, which I found especially striking when he solved it live during the experiment, was Puzzle 2:



Black to play

Michael mentioned the key idea of 1...♖xf3! along with its tactical justification in only eleven seconds, but then spent over four minutes looking for a possible refutation or better alternative.

The data clearly indicates that stronger players spend more time falsifying their ideas, so players of all levels can potentially benefit from becoming more aware of the concept of falsifying, and from implementing it when making decisions at the board.

Chapter 4.3

Why Can't I Play Like a Super-GM?

by Philip Hurtado

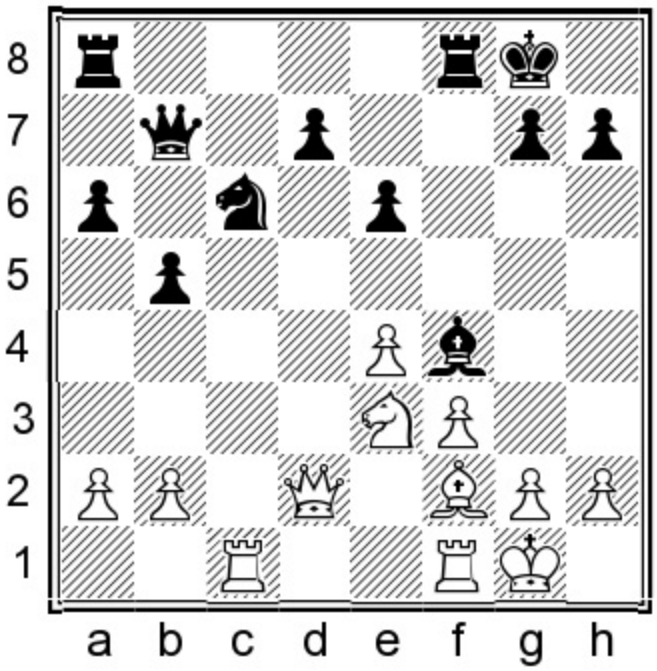
I am not a Super-GM (obviously!) but having conducted this experiment and been privy to the thought processes of players all the way up to Michael Adams' strength, I have gained considerable insight into the many factors that make Super-GMs much better at chess than the rest of us.

Based on my observations, here are the reasons why Super-GMs are stronger players than you or I. Dear reader, I hope you are ready for this...

We can't calculate nearly as well as they do

Simple but true: stronger players calculate further, faster and more accurately. There is a near-perfect correlation between players' Elo ratings and the number of best moves they can see ahead. If you can't calculate deeply enough, you're not a Super-GM.

Puzzle 30 is a good example. Nakamura has just played 17...♗f4, and now it is Carlsen's turn to reply:



White to play

Many players, including several of IM level, chose 1.g3 ♘e5 2.♕e2 ♗h6 3.f4 was advantageous for White.

Can you see (or remember) the problem with this?

Michael Adams and Julio Granda quickly rejected this option because of the following sequence: 1.g3 ♘e5! 2.♕e2 ♗h6 3.f4 ♕xe4! 4.fxe5 ♖xf2! 5.♖xf2 ♗xe3 and Black comes out on top. There are plenty of other instances throughout the book where both Mickey and Julio display their superb calculation skills. Other examples that particularly impressed me are Puzzles 10, 28 and 35.

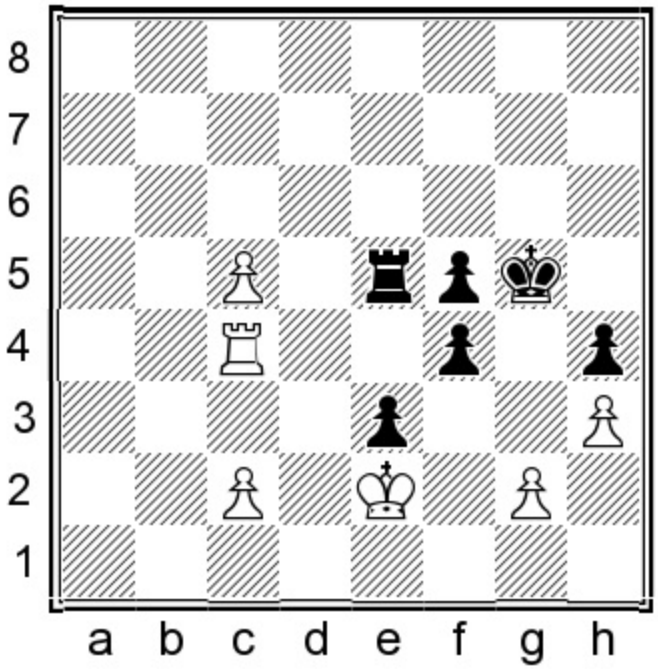
GMs (and especially Super-GMs) base their decisions primarily on calculation

This is something I was previously unaware of. When I first started showing the puzzles to players, I was originally only focusing on "Can the player find the correct move?" and "How long will it take this player to find the correct move?"

I imagined that the strongest GMs would eventually choose better moves mainly because of their superior knowledge and experience. Everything changed when I showed the puzzles to Julio Granda – the first top grandmaster with whom I carried out the test.

At amateur level, decisions are made primarily on intuition, supported by only a little bit of calculation. As players became stronger and more experienced, at good club level, their decisions are based on roughly 50% intuition and 50% calculation. But at the highest level, it is a completely different ball game: their decisions are based on more like 10% intuition, and considerable calculation to confirm that choice, which comprises 90% of the thinking process.

Puzzle 28 provides a good illustration:



Black to play

Virtually all players, weak and strong, will go for the best move 1...♖d5 in order to go for counterplay, rather than blockading the passed pawn with their rook. They know from experience that putting your rook in a passive position usually doesn't end well.
As I tested this puzzle with stronger players, I noticed that they analysed deeper and more accurately. This point of realization came when I showed this puzzle to Julio Granda. I sent him the puzzle as an image via WhatsApp. As with most players, he quickly discarded 1...♖e7 and started analysing 1...♖d5. I remember the thoughts racing through my head when Julio was giving me the variations over the phone: "Crikey!" I thought. "He surely can't be looking at a computer, because I have just sent him the puzzle over the phone." "And he can't be moving the pieces on a board either, because he started solving the puzzle immediately after receiving it."

Julio gave the exact same variations I got when I analysed this position with Stockfish. Julio even saw White's saving resort 5.♖c3! – which up until then, nobody else had seen.

This is the critical line Julio Granda gave me over the phone as he looked at the position on his screen:

1...♖d5 2.c6 ♖d2† 3.♔f1 ♖f2† 4.♔e1! (forced, as if 4.♔g1 f3! wins) 4...♖xg2 5.♖c3! f3 6.♖xe3 ♖xc2 7.♖xf3 ♖xc6 With a theoretical draw.

I was not only impressed, but I realized for the first time that I was dealing with a totally different class of player.

***

I was in for another surprise two weeks later, when I visited Michael at his house in Taunton and showed him the same position. As it turned out, Mickey saw the exact same line with the same precision, concluding that after 1...♖d5 we enter a forcing variation, which leads into a rook endgame with two pawns against one, which should be drawn.

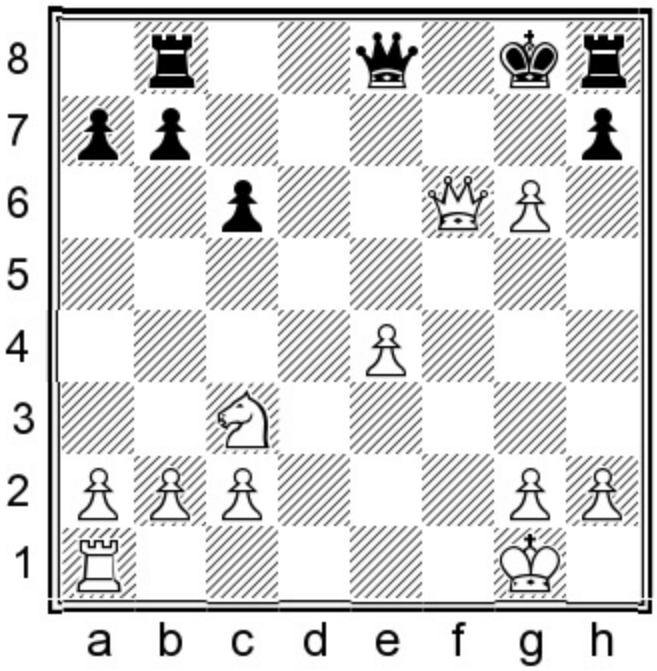
This ability to see deeper and more accurately into any given position was the first thing I noticed Super-GMs were much better at than us. By contrast, my friend Fermin, who is at the other end of the rating scale with an Elo of 1544, can only manage to see 1...♖d5 followed by ...♖d2†, leading to a repetition by perpetual.

If you think you are a Super-Grandmaster, or a candidate to become one, I challenge you to solve Puzzle 8. See how many best consecutive moves you can find.

Experience and Intuition

Although calculation is the Super-GM's greatest asset when it comes to decision-making, experience and intuition help them find the best moves faster. Stronger players have more experience and knowledge. When shown a position, this expertise guides them towards finding the best move much faster than it does for a lesser player.

Super-strong players can quickly narrow down their candidate moves to the best move – often within a matter of seconds. They almost instantly reject superfluous lines, thanks to a combination of calculation and intuition, and quickly zoom in on the critical line. Little effort is wasted considering weak alternatives.
Here is a simple example to illustrate:



White to play

Try and solve it yourself before looking at the solution, and take a note of how long it takes you to find the right move.

Most inexperienced and weaker club players will consider a wide array of moves, including 1.♕f7†, 1.gxh7†, 1.♖f1, 1.g7, 1.e5 and 1.♘d5, and will spend a considerable amount of time, usually minutes, evaluating the outcome of each of the options.

As you show this position to stronger club players above Elo 1800, some of the above moves are immediately rejected, within seconds, or not even considered, such as 1.♕f7†. But they will still spend some time before they narrow their search down to the most promising move, and find the correct one.

I wondered how long it would take a Super-GM to find the winning move. See the table below for the answer:

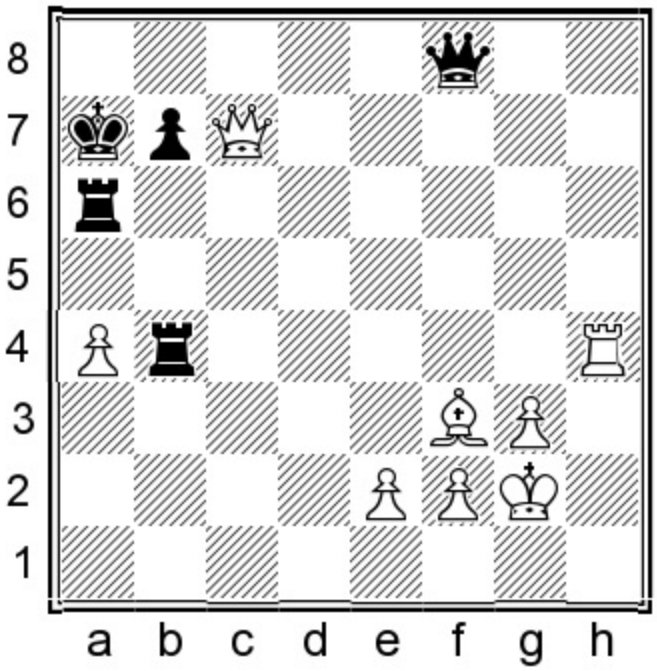
Player	**Elo rating**	**Time to realize 1.g7 might be winning**
Joaquin Lopez	unrated	After 8 minutes he still does not see that 1.g7 is winning, and he chooses 1.e5 so he can move his knight to e4 to join the attack.
Leo Hurtado	1345	After 1 minute and 20 seconds he realizes 1.g7 is strong. It takes him another 6 minutes to realize it leads to inevitable mate.
Fermin Rodriguez	1544	After 7 minutes he chooses 1.♖f1. He does not realize 1.g7 wins.
Francisco Marcos	1842	Mentions 1.g7 as one of his candidate moves after 30 seconds. Takes him another minute to realize it wins.
Michael Adams	2701	Spots 1.g7 instantly. Sees it is mate in less than 2 seconds.

Michael's ability to zoom in quickly and lock on to the best move was one of the first things that stood out to me when I started showing him the puzzles.

Relentless determination

Another glaring point I observed when working with titled players was their relentless determination to find the best move. By contrast, weaker players below around Elo 1700 would quickly satisfy themselves with what they felt was a reasonably good option, as soon as they found one, without going deeper into analysis.

Bonus Puzzle 43 is a typical example that illustrates weaker players' complacency:



White to play

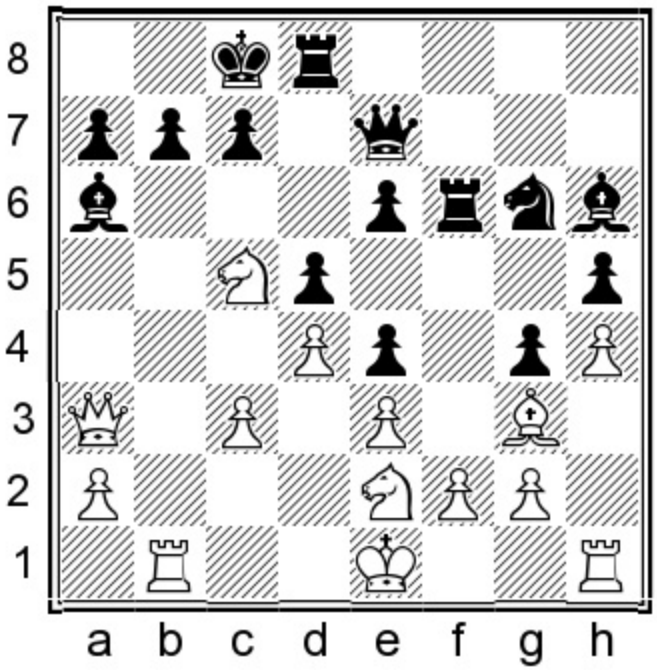
Failing to see a direct win by checkmate, most players will soon spot 1.♖h7, which is very logical, as it adds further pressure on the b7-pawn and is visually strong.

Most weak yet relatively experienced players who spot 1.♖h7 will play it almost immediately, knowing intuitively it is strong and must be winning eventually. Which is true, by the way.

Michael must of course have seen 1.♖h7 in his game against GM Sethuraman, but he put further effort into the position and found the much more efficient 1.♖f4! for an instant knockout punch.

Throughout the experiment I observed stronger players putting more effort into each puzzle, trying to find the best possible move, always supporting their choice with concrete variations. This relentless determination to find the best move embedded in Super-GMs is a manifestation of Emanuel Lasker's famous quote: "When you see a good move, look for a better one."

One interesting point I would like to make regarding these words of wisdom from Lasker is that, although the quote is well known, club players of my standard seldom apply it during actual play, and thus often miss winning opportunities that are latent in the position. A good example I can think of is Puzzle 7, taken from one of my own games:



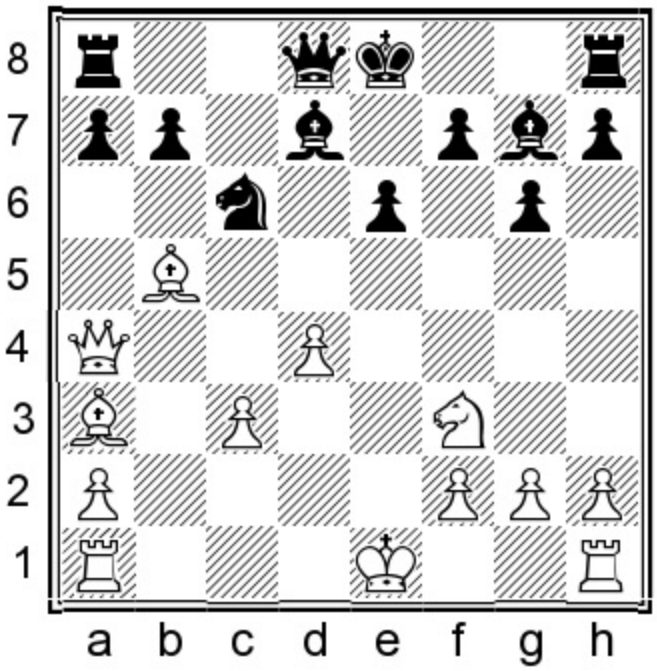
White to play

During the game I saw the "good" move 1.♕b4, and of course immediately went for it. Had I applied Lasker's recommendation, I would have surely found the winning 1.♖xb7!.

Super-GMs pay more attention to the opponent's threats

One thing I noticed Michael does a lot at the beginning of many puzzles is to ask himself: "What is my opponent trying to do?" Answering that simple question often helps him to find the best move for himself.

We will look at a couple of illustrative examples, beginning with Puzzle 14:



White to play

White's next move is very difficult to find, unless you have asked yourself that very precise question. And it is highly unlikely that any amateur or lower-rated player will have solved it.

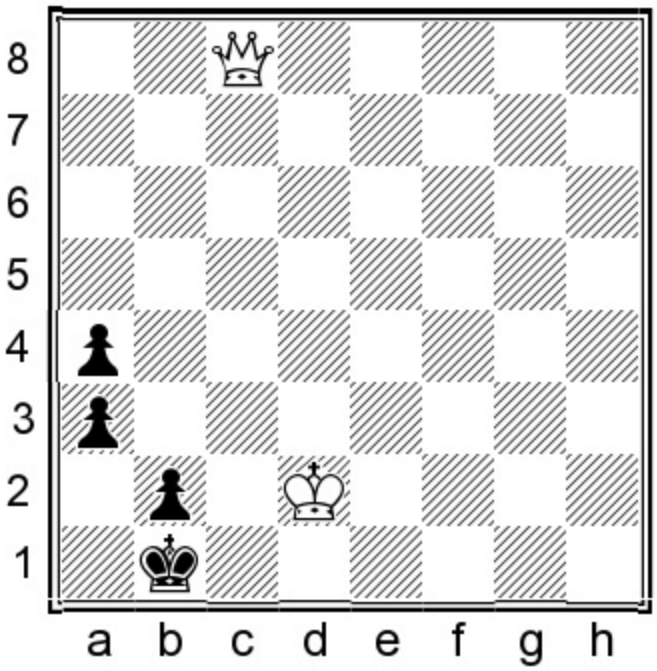
Most amateur players will think only of attacking moves, and will come up with ideas like 1.d5, 1.♘e5, 1.♖d1, 1.♗d6, or perhaps castling (on either side). Even after thinking for fifteen minutes, they will not find Carlsen's move.

The interesting thing, however, is that when I asked players who failed the puzzle to turn the board around and say what would they play as Black, they all answered 1...a6.

Then, when I gave them a second opportunity to solve the puzzle, they all logically determined within a few minutes, that the best idea was to move the queen away.

Suddenly, Carlsen's move 1.♕b3! becomes much easier to understand. What made everyone smile was when I told them Carlsen found this move in a blitz game, in approximately fifteen seconds.

Here is another interesting example to reinforce the concept:



White to play

Try and solve it before looking at the solution. It is quite difficult! You can note the time taken again.

This position is particularly challenging. Again, I don't think any weaker club players are able to solve it. The first instinct is to give a check with 1.♕c2†. After long analysis, some players will realize this move does not win, and will try a variety of other queen moves such as 1.♕c4, 1.♕f5†, 1.♕c3 and so on, entering into a "trial and error" scenario, which requires a lot of calculation and is very time-consuming.

When I showed this puzzle to Michael, the move he intuitively looked at first was also 1.♕c2†, as queen checks close to the king usually lead to mate.

However, as soon as Michael realized 1.♕c2† did not win, he paused and asked himself what Black's next move would be. In fact, Black only has a few possible legal moves based on two possible ideas: 1...a2, with the idea of promoting the a-pawn; and 1...♔a1 or 1...♔a2, with the idea of promoting the b-pawn. So all White has to do is to find a move that prevents both of Black's ideas.

Preventing 1...a2 is easy: any move enabling the queen to reach the first rank will lead to mate.

Preventing the b-pawn from promoting after 1...♔a1 or 1...♔a2 is not that difficult either: White just has to put the queen on the b-file, and when Black's king moves, White responds with 2.♔c2, winning by stopping the b-pawn.

So the only queen move that satisfies both of the above conditions is 1.♕b7!.

With this "reverse engineering" way of finding moves, Michael found the winning continuation in under three minutes, whereas a strong club player can take up to forty minutes to find the same move, following the trial and error method.

This method of finding a move to counter the opponent's plans is something I frequently observed in Julio Granda and Michael Adams when they were solving the puzzles. If you read back over the solutions, you will notice many such examples in their comments. One further example that comes to mind is Puzzle 22, where all of the weaker players (including myself) make a move without thinking about Black's intentions. By contrast, both Julio and Michael selected their move after figuring out what would be most disruptive to the moves that Black was hoping to play.

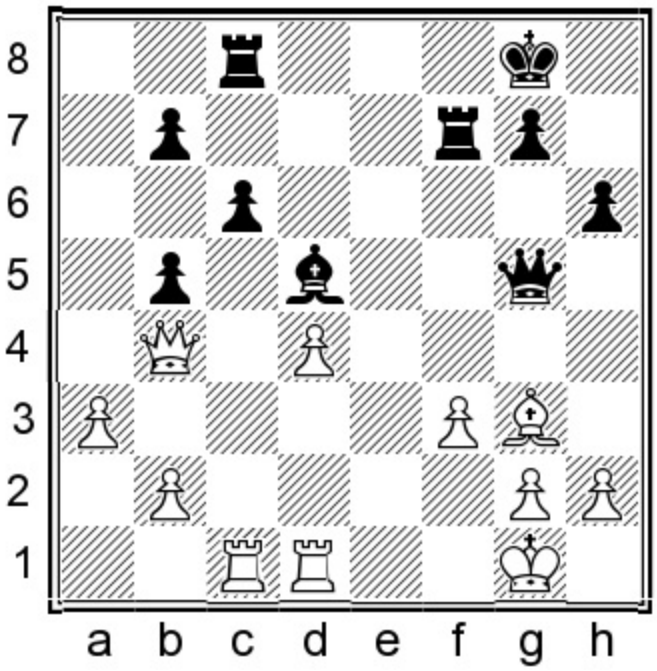
Super-GMs do not make a move until they have investigated the opponent's best reply

This point is closely related to *The Art of Falsifying* as discussed in the previous mini-chapter, and is yet another thing that surprised me with Julio Granda and Michael Adams in particular. They both put what seemed to me to be a disproportionally large amount of effort into determining the opponent's best reply, even in cases where it was clear that they had already found a strong move. Julio for example, who solved the puzzles talking to me in Spanish, would often say "*Vamos a ver cuál es la jugada que ofrece mayor resistencia*" ("Let's see which reply offers the highest resistance").

Prior to working with Julio and Michael, I noticed that most participants concentrated only on finding the first move, and used little effort in finding out which was the opponent's most testing reply, or the critical line of play that followed it.

Super-strong players, on the other hand, didn't make their final decision until they had figured out exactly what was their opponent's best reply, and determined what was happening in the position. As detailed in the previous section on *Falsifying*, the strongest players invested considerably more time and effort into finding the opponent's best reply than they did into finding their own move.

Puzzle 2 was mentioned briefly at the end of Chapter 4.2 to illustrate the topic, but we will revisit it here and break down in more detail the thought processes of different strengths of player.



Black to play

When showing this position to average club players, the most popular reply is "1...h5, with advantage to Black". Weak players only tend to see linear attacking moves: 1...h5 followed by 2...h4 and 3...♗xf3. They pay little attention to the defensive resources.

In actual fact, 1...h5 is well met by either 2.♕e1 or 2.♕d2, disrupting Black's attacking plans and giving White the upper hand.

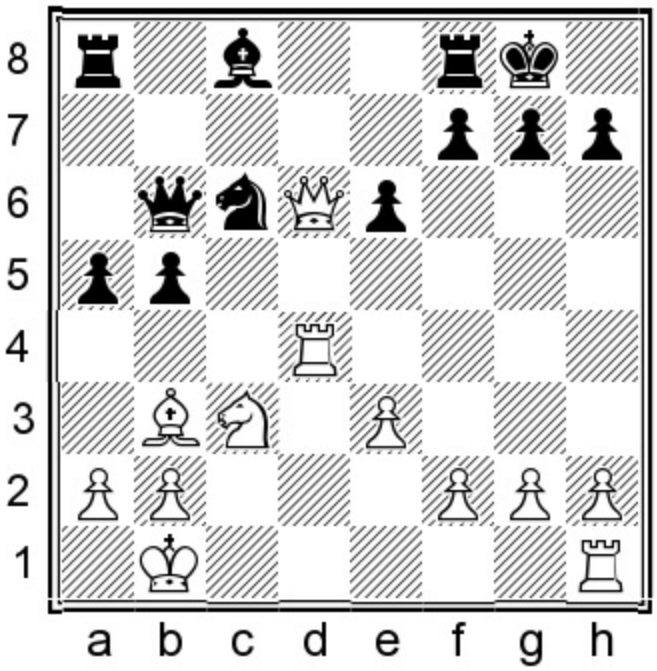
But there is more. Even stronger club players (around 2100 Elo) who managed to find the spectacular 1...♖xf3! tended to conclude fairly quickly that Black was either winning or clearly better.

Here is what GMs do differently. After they see 1...♖xf3, they immediately start thinking about what they would play if they were in White's shoes. I've noticed a clear difference in mental attitude between weaker players and top ones. Weaker players, like ostriches when they bury their head in the sand, do not want to see the opponent's resources, and therefore do not try too hard to find them. The super-strong players, in contrast, look for a defence to 1...♖xf3 as if somebody had played it against them, and it was their turn to find a response.

All of the top GMs who I tested this position with worked out that White's best reply to 1...♖xf3 is 2.♕d2, dampening down the attack and reducing Black's advantage to a bare minimum.

I think these two last characteristics – paying close attention to your opponent's threats, and putting all your resourcefulness into finding the opponent's best reply – are the most distinguishable traits of strong players, and especially of a Super-Grandmaster.

At the time of writing, I have recently played a club tournament online, and reached the following position which, again, exemplifies the point I am trying to make:



Black to play

Thinking he was winning, Black played a move that a GM would definitely consider as a candidate move, but would never end up playing: 16...♖d8??

My 1843-rated opponent was optimistic about his choice, confident that he was going to win at least the exchange. Black's problem was that he did not bother to stop and think about what was the best reply. Otherwise he would easily have found my clever response, 17.♕xc6!, which led him to resign.

As the rook move attacked my queen, there aren't that many options to consider in reply. My opponent was undoubtedly capable of seeing 17.♕xc6 in advance, had he made the effort to look for it. I believe this lack of determination in trying to find the opponent's best move is one of the main factors which can hamper a player's progress.

Perhaps, now is a good moment to reintroduce Richard Feynman's quote used in my introduction to this book, but this time in its full format: *"We must be careful not to believe things simply because we want them to be true. No one can fool you as easily as you can fool yourself!"*

Although Professor Feynman used this quote to encourage physics students to question their own ideas in order to find loopholes in their knowledge, the concept is very much applicable to chess. In the example above, my opponent fooled himself into believing 16...♖d8 would win the game, and did not question it, as he wanted it to be true. By contrast, in each and every puzzle I showed Michael, even the ones where the solution seemed obvious, he always questioned his move, making sure he was not missing a clever reply.

Super-GMs are super-concrete

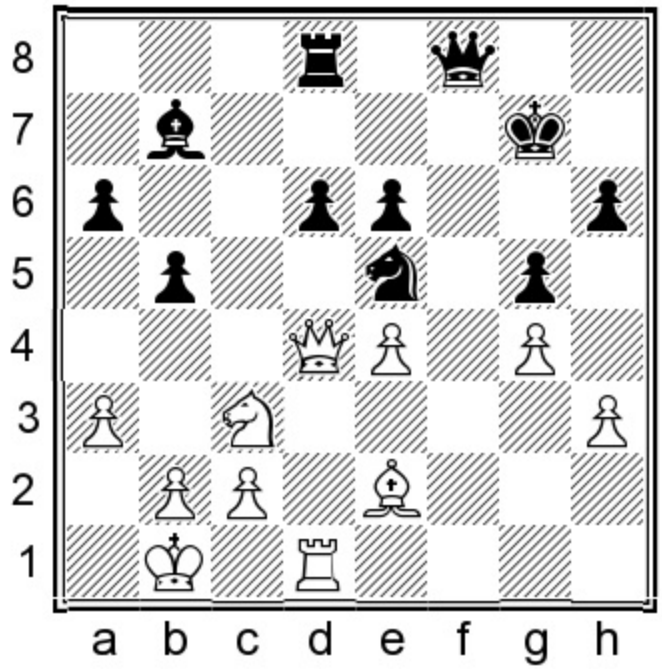
As soon as I started working with players above 2300 Elo, I couldn't fail to notice how concrete they were when they gave out their variations. A weak player will enumerate multiple possibilities, and give you an abstract idea of what they are aiming to do, but rarely define precise lines. When you show these puzzles to a top Grandmaster, the first thing you will notice is how quickly their variations converge to one line of play, which often tends to be the best line given by the computer.

A top Grandmaster will nearly always give a clear, well-defined line of play. From my experience witnessing players solve these puzzles, I would say there is a clear correlation between how strong a player is, and how concrete their solutions are. See Chapter 4.5 on page 395 for a more detailed discussion on the related topic of how far ahead Super-GMs calculate compared to lesser players.

Super-GMs are not constrained by dogma

Many participants failed to solve some of the puzzles simply because they rejected good moves based on dogma, or prejudice. Super-GMs, on the other hand, will investigate promising ideas further, even if they contravene general principles.

Let's see a couple of illustrate examples, starting with Puzzle 21:

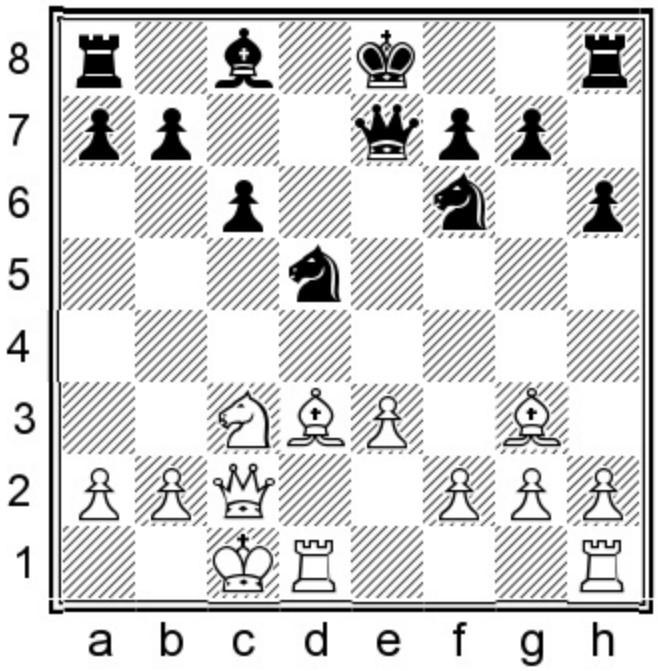


White to play

Many club players observed the possibility of playing the positionally desirable 1.a4. However, most rejected it almost instantly on the grounds that it is never advisable to open lines in front of your king. Their analysis stops after 1.a4 bxa4, noting that the b-file is opened towards the white king.

Michael Adams understood that the positional benefits of playing 1.a4 far outweighed any theoretical

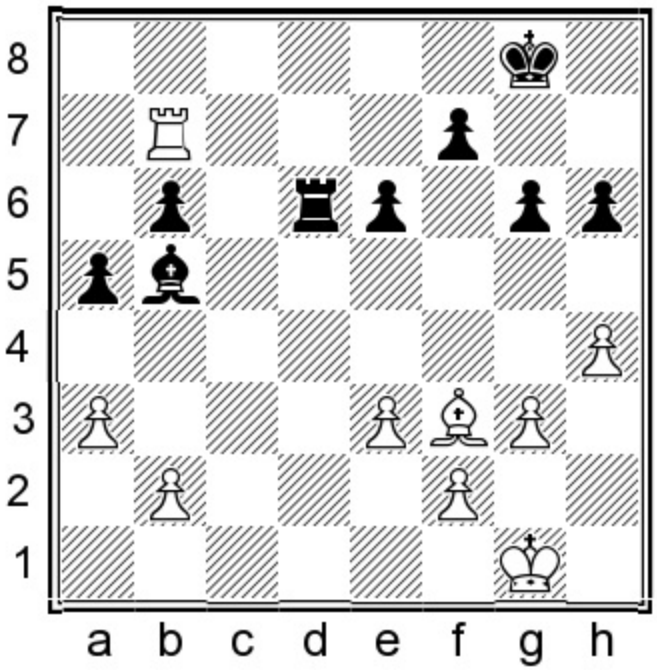
compromise of the king safety. And indeed, this was the move he successfully played in his game against Al Sayed.
Puzzle 6 is another prime example:



White to play

Practically all competitive chess players are hardwired to safeguard the bishop pair against knight exchanges. Most players, including myself, considered playing the obvious 1.e4 as an option. But I, like many others, rejected it immediately, simply because of the reply 1...♘b4. Both Julio and Mickey looked deeper into 1.e4 and realized that the positional benefits clearly outweighed the minor concession of exchanging the bishop for a knight.

Puzzle 5 is yet another example:



Black to play

It is almost impossible for any club player to play the best move (1...a4!), simply because it contravenes one of the basic principles all advanced chess players learn: “Avoid placing your pawns on the same-colour squares as your bishop”. Again, both top GMs participating in this study decided to investigate the tangible benefits of playing 1...a4, and ended up correctly playing it, despite the fact that it violates the aforementioned fundamental principle.

Final Conclusions

Chess is in essence a decision-making game. It is about choosing the best move amongst an array of options.

Having personally conducted all the tests with over fifty different players, I have been in a privileged position to see first-hand how world-class players choose their move compared to the process of lower-category players.

What I have witnessed, is that the logical process for choosing a best move is practically the same for an amateur as for a Super-GM. However, what makes a Super-GM so successful at consistently selecting the best move is a combination of knowledge and calculation skills.

Knowledge helps the Super-GM quickly narrow down his search field, so he can concentrate his efforts on the most relevant lines.

Superior calculation of those moves enables the Super-GM to analyse the outcome of each of those lines, and confirm the correct choice.

The main secret these puzzles have revealed to me is that, once you’ve acquired a certain level of knowledge (approximately strong club level), calculation is a bigger factor than knowledge in your

final move choice. Notice that every single puzzle solution that Michael and the other grandmasters provided in the book was backed by precise calculation. There was no opening theory; no good vs. bad bishop endgames; and no topical opening variations whatsoever. In fact, top GMs performed equally well in positions taken from Chess 960 games which featured relatively unorthodox pawn structures and piece placements.

In light of the above, my recommendation to my friend Fermin (Elo 1544), who has been playing chess for the last thirty years, is that he stops memorizing lines in Owen's Defence and concentrates exclusively on solving chess puzzles to improve his calculation skills. The above recommendation may sound a bit jocular, but I will also be applying it myself, and will monitor my rating improvement over the coming years to test its efficacy.

From the results of the experiment, if you conduct a blind test using hypothesis testing, you will not notice any significant difference between the performances of Julio Granda and Michael Adams. Another player who performed extremely well, and actually achieved the highest score of all, was Eduardo Iturrizaga.

After witnessing Eduardo's skill solving the puzzles, I began to suspect that Eduardo's playing strength was even greater than his already impressive Elo rating of 2607. I did some research and indeed found that Eduardo's rating had been Elo 2673 a few years previously. Based on how he performed in the puzzle experiment, I am convinced he is well capable of boosting his rating back to its previous high and perhaps beyond in the future.

Regardless of how Eduardo or I play in the future, I am confident that the other conclusions from this experiment will hold true for many years to come, and that the reader, as well as I, will now have a much better understanding of what separates Super-GMs from ordinary players.

Chapter 4.4

Pearson's Correlation

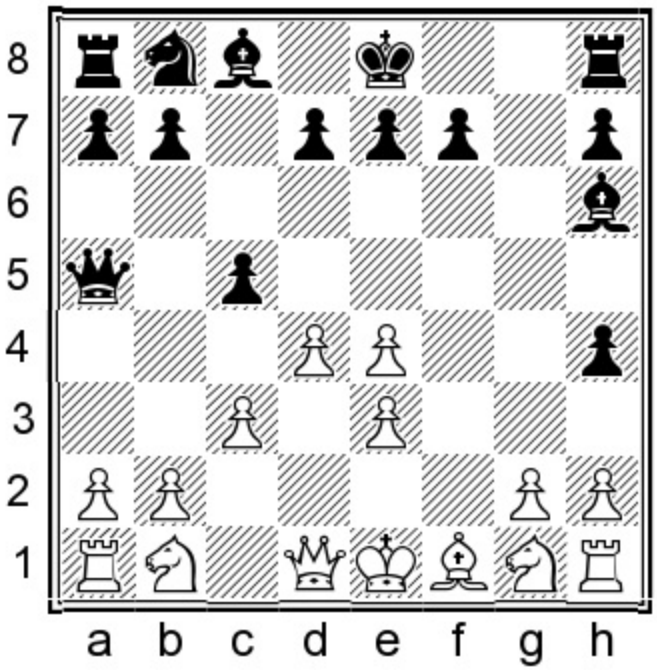
by Philip Hurtado

The relationship between chess playing strength and evaluation skills

Former World Champion Anatoly Karpov once mentioned that the difference between a strong player and a super-strong player lay in how well the superior player evaluates the resulting position.

I want to stress the importance of the last two words: *resulting position*. This is the position the player envisages after the best line of play has occurred on the board. The reason why I stress this point is because players of all levels are surprisingly accurate at evaluating the current position they have in front of them. Even players with an Elo rating of 1600 can evaluate the position on the board quite accurately. Not as accurately as grandmasters, obviously – but the gap is less wide than you might think.

However, when players are asked to evaluate the *resulting position*, it's a different story. Puzzle 4 is an excellent example:



White to play

Every single club player I have shown this position to assessed the position to be favourable to White, with typical evaluations between +0.5 and +0.8. The reasons given for this judgement are also clear, and common to most players. White has an impressive centre; the bishop can be nicely developed to c4, attacking the sensitive f7-square; and the queen has many menacing positions to go to, such as f3 or h5. On top of that, Black has doubled h-pawns and a wrecked kingside pawn structure which will make castling very dangerous. From everything we have been taught about chess, and from our intuition developed after many years of competitive play, all club players, weak and strong, including myself, will determine that White is better. And in fact, that is the truth.

But now comes the difficult part. What to play? And how do you evaluate the position after you have made your move?

Being an optimistic player, I went for 1.♕f3 thinking that I was crushing my opponent. Apart from the fact that it defends the e3-pawn, I imagined follow-up moves like ♗c4 and at some point castling, putting enormous pressure on the f7-pawn. I also noticed in passing that if Black plays 1...cxd4, I would simply recapture 2.exd4, keeping my impressive centre and advantage.

Alas, when I entered 1.♕f3 on the computer it soon slapped me in the face with an evaluation of –1.7. I was so shocked I thought I had entered the position incorrectly on the machine! But no, it was set up perfectly. So I then played out the line to see why it gave it such a negative evaluation. The reason becomes apparent two moves later: 1.♕f3 cxd4 2.exd4 and now the engine killed me with 2...♕g5!.

My friend Andrew McCumiskey expressed similar dismay when I told him the computer gave his move, 1.♕h5, an evaluation of –0.3. McCumiskey, also an everlasting optimist like myself, thought 1.♕h5 was brilliant, and that it retained all of White's advantage. (See page 55 for his full thought

process.) Indeed, on the surface 1.♕h5 seems like an excellent multi-purpose move: it pins Black's c-pawn, preventing 1...cxd4, while attacking the bishop on h6 and putting pressure on the f7-pawn. McCumiskey even anticipated the best reply, 1...♕b6, and still evaluated the position as +0.5. McCumiskey's evaluation was off by 0.8, while I was out by 2.35!

On the other hand, if you review the comments of top players like Michael or Julio Granda (see pages 57 and 58), you will see that they not only chose the same move as the computer, but also that their assessments were very similar.

Reviewing the data

One of the many objectives of this experiment was to test the accuracy of Karpov's statement. This is why I asked every player to supply an evaluation of the position after they had decided on their move. Once the data had been collected, I carried out a statistical analysis to determine if there was a clear correlation between Elo rating and accuracy of evaluation. Before moving on to the results, let me say a few words about the concept of correlation.

Correlation is defined as *a mutual relationship or connection between two or more things*. The stronger the correlation, the stronger the mutual relationship.

Understanding correlation is quite easy. The difficulty lies in measuring how strong it is. In 1893, English mathematician Karl Pearson derived a formula to precisely define how strong a correlation is. The formula he invented gives a coefficient that ranges from –1 to 1. Values close to –1 or 1 would indicate a very strong correlation, and values close to 0 would mean no correlation at all.

Here is an example of correlation to better understand the concept: it is well known in the medical sciences that there is a mutual relationship between the length of a person's forearm and their height. If you use data from various individuals, and insert this data into the formula, you will get a correlation coefficient of 0.8. This means that there is a strong, direct relationship between the length of a person's forearm and their height: the longer the forearm, the taller the individual.

Results

As expected, higher-rated players gave much more accurate evaluations than weaker players, when using the engine evaluation as a reference point. Strong grandmasters like Michael Adams and Julio Granda can assess ten complex positions with similar accuracy to a modern chess engine such as Stockfish, and give evaluations that are usually within plus or minus 0.3 points from the engine's evaluation. Strong club players with an Elo rating between 1900 and 2050, on the other hand, will diverge much more when tested on those same ten complex positions, and will give evaluations that are on average plus or minus 1.2 points away from the chess engine's evaluation.

The most striking aspect of the statistical analysis was that the correlation coefficient proved to be near perfect: 0.94. (Technically speaking, the actual value I arrived at was –0.94, because evaluation skill was measured as the difference in evaluation between the player and Stockfish, so a higher performance achieved a lower score. As explained earlier, the relevant detail is not whether the correlation figure is plus or minus, but rather how far it differs from zero.)

Conclusion

The correlation coefficient of 0.94 indicates that there is a near-perfect relationship between a player's strength and his or her evaluation skills. Karpov was right!

Chapter 4.5

How Many Moves Ahead Can a Super-GM See?

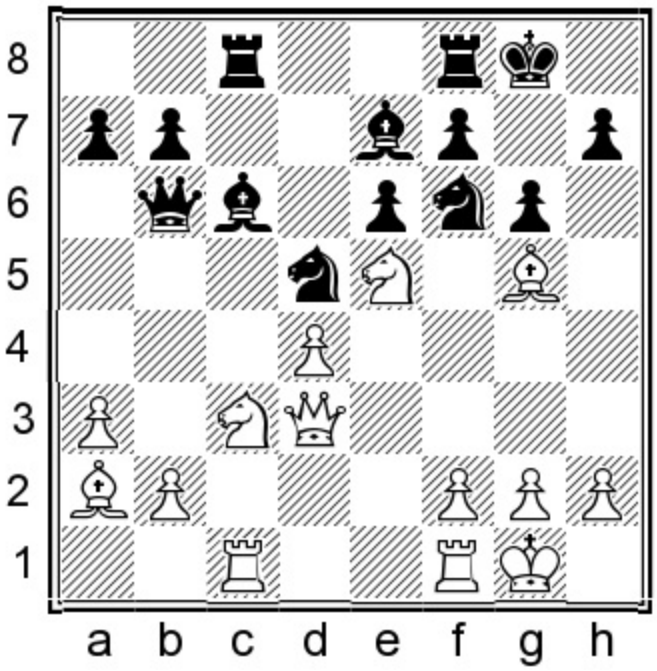
by Philip Hurtado

This is a very difficult question to answer. I don't think it has been properly resolved yet, mainly due to the many variables involved.

De Groot, in his famous work *Thought and Choice in Chess*, estimated that elite grandmasters could see 6.8 half-moves ahead. However, when I looked at his calculations in more detail, I realized that this number was not arrived at very logically, as he only used one puzzle, and only counted variations based on their length, without checking their accuracy.

When De Groot's book was first published in 1946, the grandmaster title did not formally exist, but the term was sometimes used informally to describe world-class players. The elite players involved in De Groot's experiment were none other than Paul Keres, Alexander Alekhine, Salo Flohr, Reuben Fine and Max Euwe.

Let us revisit the puzzle De Groot used for determining the maximum depth at which Grandmasters see. It is the same puzzle I mentioned on page 11 in my Introduction, which got me fascinated as a teenager, when I read the live commentary from my all-time favourite player.



White to play

In this position, Paul Keres gave the following accurate variation, which incidentally was his final answer: 1.♗xd5 exd5 2.♕f3 ♔g7 3.♘g4

De Groot sensibly counted this variation as five half-moves.

Investigating further, I wondered how on earth Reuben Fine could see ten half-moves deep here. I then realized De Groot computed the following sequence as ten half-moves: 1.♖fe1 ♕xb2 2.♗xd5 ♘xd5 3.♗xe7 ♘xe7 4.♖b1 ♕xa3 5.♘d5 ♕d6

The above sequence is by no means the best continuation. A typical case of "long variation, wrong variation."

To his credit, after further contemplation, Reuben Fine rejected the above line and gave the superior 1.♗xd5 exd5 2.♖fe1 as his strongest way to play.

By only counting the length of the variation and not taking into account the accuracy, De Groot overestimated how far players saw, and also mistakenly concluded that the depth of calculation was the same for grandmasters and experts.

In De Groot's defence, I have to say that back in 1938, when he conducted these experiments, it would have been impossible to accurately check the correctness of every line given by each of the players. Whereas today, thanks to Stockfish, we can screen out poor variations much more effectively.

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When I first embarked on this book, trying to uncover the secrets behind the thinking of a Super-GM, the idea of measuring how many moves ahead a player saw did not occur to me. However, during my puzzle-solving sessions with Julio Granda and Michael Adams, when I noticed a step change in the

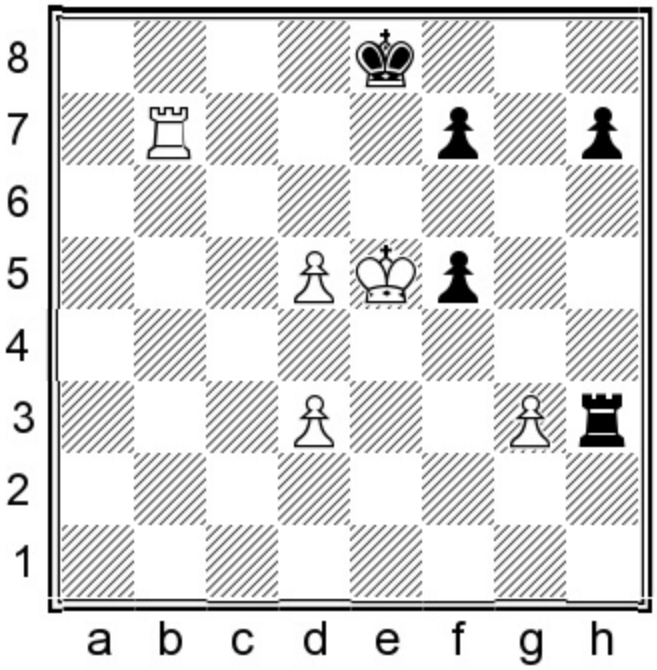
accuracy and depth of their variations compared to the rest of the players, even including other titled players, I resolved to look into this in more detail.

In order to make my calculations, I retrospectively checked the solutions given by top GMs to my puzzles, and made a new calculation of how many moves they saw. This time, however, I focused on counting the number of accurate consecutive moves a player was able to give. I defined an accurate move as one that Stockfish gives as either its first choice, or one of its other top choices that does not significantly alter the evaluation of the position. Although this could become a bit subjective, Michael and I were both reasonably happy with this definition of an accurate sequence.

One problem with counting the number of moves in an accurate sequence is that players might select the right move for the wrong reasons, having an incorrect follow-up in mind. However, as GMs normally give accurate lines without major errors of this type, this doesn't substantially affect the calculations regarding how many moves ahead they can see.

It's important to note that, during the puzzle experiments, the players were not specifically asked to give the longest possible variation they could see, but only to verbalize the thinking process they would employ during a game. Therefore the variations given are those they would typically calculate in an over-the-board encounter, without making an added effort to deepen their calculations just for the sake of it. This simulation of practical play, carried out across a range of different types of positions, gave me confidence that the results would be a realistic estimate of the number of accurate moves commonly foreseen.

I did the same thing for strong club players around my own level, and compared their analysis. The results are as you would expect: the GMs massively outperformed the club players. Puzzle 10 is a typical example that illustrates how much better GMs can calculate:



White to play

This is a puzzle that most club players, and even many IMs, failed to solve. GMs Eduardo Iturrizaga, Julio Granda and Michael Adams, on the other hand, had no trouble whatsoever in finding the correct 1.♔d6.

Here is the sequence that Julio Granda gave as he solved the puzzle: 1.♔d6 ♔f8 (Julio had previously mentioned that 1...♖h6† 2.♔c7 ♔e7 3.♖b1 with the idea of ♖e1† was also winning) 2.♔c7 ♖xg3 3.♖b3! ♖g1 4.♖c3! and wins.

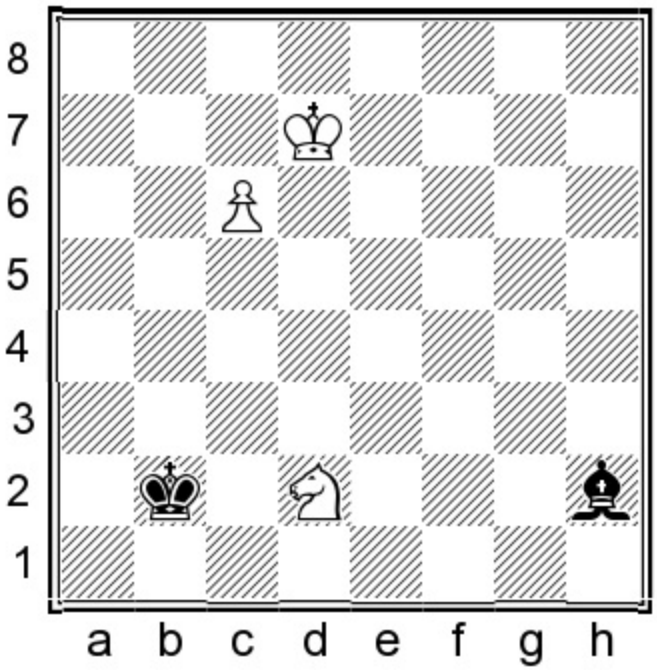
In this example, Julio found seven top computer half-moves that secure the win – including the impressive 3.♖b3! and 4.♖c3!, the visualization of which blew me away.

Julio could probably have gone on for some more moves, if that was the sole objective. But players only give the minimum number of moves required until they are satisfied they have seen enough to assess the position correctly in their analysis.

In contrast, club players with an Elo rating of around 1900 did not give any good continuations after 1.♔d6 ♖h6†,
or after 1.♔d6 ♔f8.

The number of best consecutive moves a top GM sees is obviously not constant. It varies wildly from the rare cases when he misses the first best move, to fifteen or more moves in some concrete endings. However, it should be possible to make a reasonable average.

When I performed the calculation, I excluded some easy examples where it was only necessary to give a couple of moves to reach a clear assessment, such as Puzzle 19, or Puzzle 26 shown below:



1.♘c4† ♔c2 2.♘d6 are the only half-moves required to resolve the situation: the GMs do not bother following the sequence further, as the game is decided.

Results

The three top grandmasters, Iturrizaga, Granda and Adams, representing players in the 2600-2700 Elo range, scored an average of 4.9 accurate consecutive half-moves in the puzzles. The four chosen club players, Francisco Marcos, Taran Jina, Philip Hurtado and Nathanael Paul, representing players in the 1800-2000 Elo range, scored an average of 0.9 accurate consecutive half-moves. Of course it's no great surprise that top GMs see on average much deeper than their club-player counterparts, but it was interesting to be able to quantify the difference, at least within the confines of the chosen methodology.

Without getting too drawn into the nuances of statistical analysis, it is worth pointing out that the above figures come with a 90% confidence interval, reflecting the possible fluctuation of the average due to the inherent variability of the puzzles.

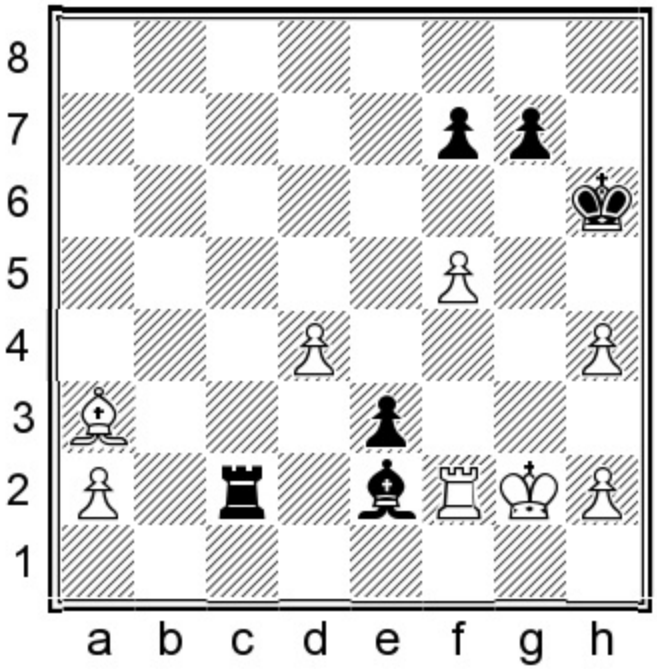
With the grandmasters, we can say with 90% confidence that their average sequence lies somewhere between 4.2 and 5.6 accurate consecutive half-moves.

For the club players, we can say with 90% confidence that their average lies somewhere between 0.3 and 1.6 accurate consecutive half-moves.

Discussion of Results

There are two main reasons why the club players fared so badly. Firstly, they failed to find the first best move in approximately 40% of the puzzles, which obviously had a negative effect on their average result. Secondly, even when they do find the best move, they are not as determined as the grandmasters to find their opponent's most resourceful continuation.

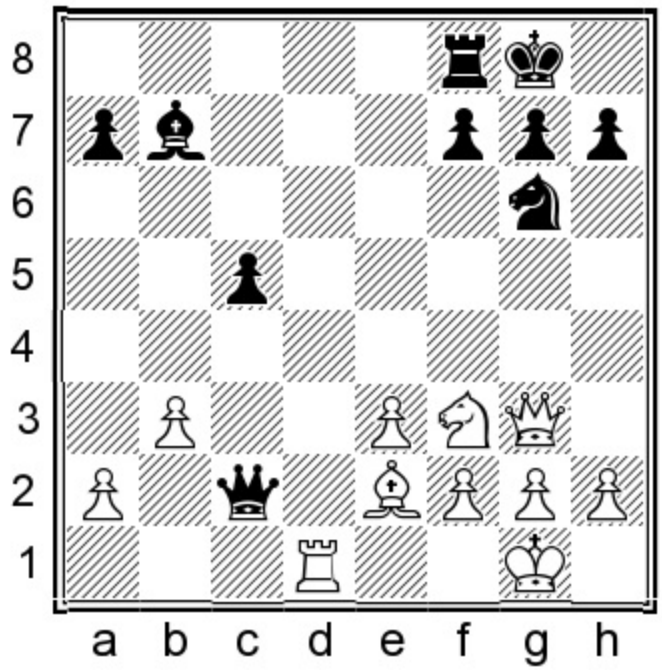
Puzzle 29 is a good example to illustrate both of the above points:



White to play

Not all the club players found 1.♗c1! – and those who did were quick to conclude that White was better, failing to see Black's best reply. All three of the above GMs, on the other hand, spotted Black's clever response 1...♗f3†! and carefully analysed the best continuation from there.

Puzzle 3 is another example showcasing the GMs' greater determination to look deeper into the position:



White to play

Most club players will settle for 1.♖d2 ♕c1† 2.♖d1, concluding it is a draw.

Some club players will also consider the optimal continuation of 1.♖e1 as a candidate move which defends the attacked bishop – but after 1...♕xa2 their variation abruptly stops.

Top GMs go further. Michael looked at 1.♖e1 ♕xa2, and then examined three of the computer's top choices: 2.♗c4, 2.♕c7 and 2.h4.

One variation Michael considered is 2.h4 ♕xb3 3.h5 ♘e7, which the computer likes a lot for White, despite being a pawn down! Michael notes here that the natural continuation 4.h6? is a mistake, as it can be met by the handy reply 4...♘f5, which is good for Black.

After pondering White's various promising options on move 2, Michael was confident that 1.♖e1 retained the advantage, and correctly chose that move as the solution.

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As you can see from the examples above and from the analysis, we can confidently conclude that GMs see much deeper into the position than club players. Approximate five times deeper, according to my analysis!

Having established the above findings, curiosity led me to conduct a similar calculation taking a sample of weaker club players, with Elo ratings between 1600 and 1800. In this case, the differences with the GMs are even more pronounced. The weaker club players were only able to see an average of 0.4 consecutive accurate half-moves. One significant reason is that players in this Elo range fail almost all the puzzles above difficulty level 7. And like the stronger club players, they often fail to mention the opponent's best reply to their move in the instances when they do solve the puzzle. As you would expect, the average number of moves correctly calculated ahead generally goes up or down in accordance with the rating scale.

Conclusion

So what is the answer to the million dollar question? Well, having conducted a computer software correlation test using all the data from the experiment, I can report that there is an absolute correlation between a player's strength and the depth at which they accurately calculate, which goes from barely above zero moves for an absolute novice, to up towards six half-moves for a Super-GM.

This snapshot into this interesting but difficult question could be improved with more data, which would help to confirm the findings, and possibly narrow down the range of moves GMs see. Repeating the experiment with more puzzles and greater numbers of players representing each level of playing strength would also be useful.

Aside from attempting to answer the big question posed by the chapter title, the data also contains important practical ramifications. The results show how few accurate moves weaker players are capable of finding in complex situations, but also reveal that even strong grandmasters can't usually extend an accurate sequence particularly deep in such positions.

Interestingly, a few days before writing these lines, I came across a passage where GM Lev Psakhis gives the following sound advice: *"Don't go out of your way to calculate long variations. A capacity for precise calculation to a depth of 2-4 moves is usually quite enough."*

It's difficult to argue with this guidance from a two-time Soviet Champion.

The key word in the Psakhis quote is *precise*. Working harder when analysing at the board will pay dividends for players at all levels. Even a small improvement in this area can make a big difference to your results.

Chapter 4.6

Grandmaster Secrets

Conclusions by Michael Adams

I found reading the answers of other participants very revealing, and would like to highlight some points in particular puzzles where I was particularly interested in the commentary given. Obviously I am not aiming to criticize those who were kind enough to help with this book, and would like to again thank all those who participated in solving the puzzles. I will nonetheless try to give some constructive comments that solvers and others might find insightful.

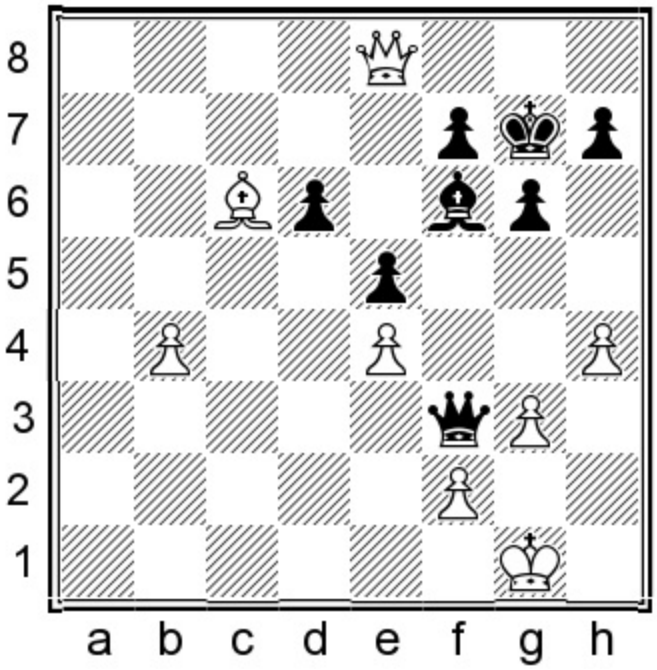
This is trickier than it sounds, as sometimes when I found a point I thought significant, I would discover that the validity of it was challenged by one of the other answers. Chess is a complicated game! I have mentioned any anomalies that I am aware of here, so you can make up your own mind where there is conflicting evidence. Just as when playing, participants of all strengths performed much better solving some positions than others, which muddies the waters, but I believe my general sentiments and suggestions still stand.

I have tried to group these points into ten main areas where stronger players excel, or where weaker players fall short, or a bit of both.

1) Know when to calculate

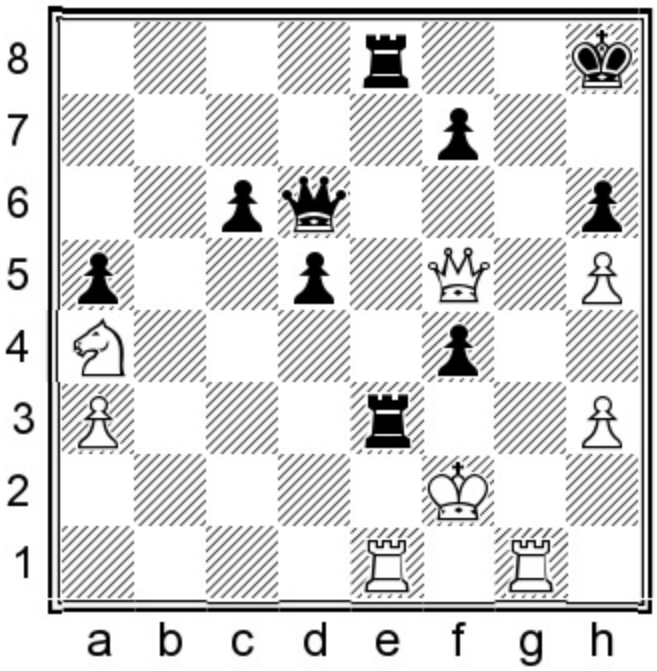
This factor tends to receive much less focus than actually crunching variations, but is in many ways more important. Phil has talked about how strong players calculate more accurately, but another strength is their ability to identify the relevant positions or lines which require serious calculation, or sensing intuitively that a combinative chance might exist. In commentary it is often described as a position being “concrete” – which is another way of saying that general considerations will be overridden by the outcome of tactical skirmishes likely to occur over the next few moves. One strong move can define the position, which means that the position cannot be accurately assessed without first working out direct, forcing lines.

Let’s see some examples, beginning with Puzzle 13:



Several weaker players dismiss the position as easily winning after 30.♗d5, often after spending little time on it, without the reply 30...♗xh4 coming into their field of vision at all. Ray Carpenter, for example, plumped for this after only one minute.

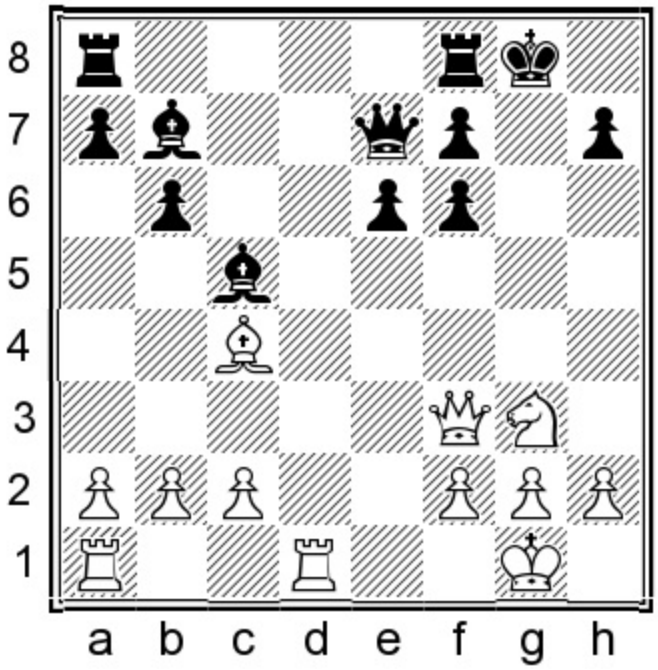
Puzzle 38 is another example where stronger players correctly sensed that the highly critical nature of the next few moves would define the result of the game:



With both kings exposed, and many major pieces on the board, this is a crucial time to check all the possible variations with the utmost care.

2) Calculate Precisely

Once you have recognized that it is time to calculate, the ability to do it accurately is another thing which sets stronger players apart. Puzzle 15 is a good test of calculation:

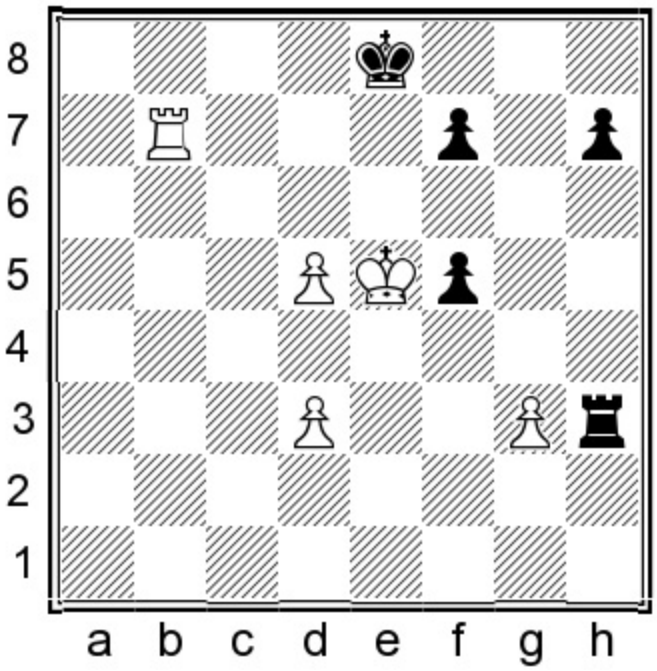


Julio passed this test with flying colours. His perfect ten-move forcing line beginning with 1.♕f4! ♔h8 2.b4! after only five minutes' thought is classy stuff. I also managed to get there in the end, but took about seven minutes longer to find the same line. It is worth noting that the excitement of this rollicking variation, and the time required to calculate it, distracted a little from looking at Black's other first moves in more detail. The most spectacular lines are often not the most relevant when determining the position's assessment. When you see a visually appealing line during a game, it's a good idea to avoid getting too carried away with creating a brilliancy, and also look carefully to make sure you have not underestimated alternative possibilities or overlooked defensive resources.

Other examples of impressive performances include Eduardo Iturrizaga, who very quickly worked out the best line in Puzzle 29, and Renier Vazquez, who crunched the variations with great efficiency in Puzzle 17. It's fair to say that most strong players are good at calculation, and some excel at it.

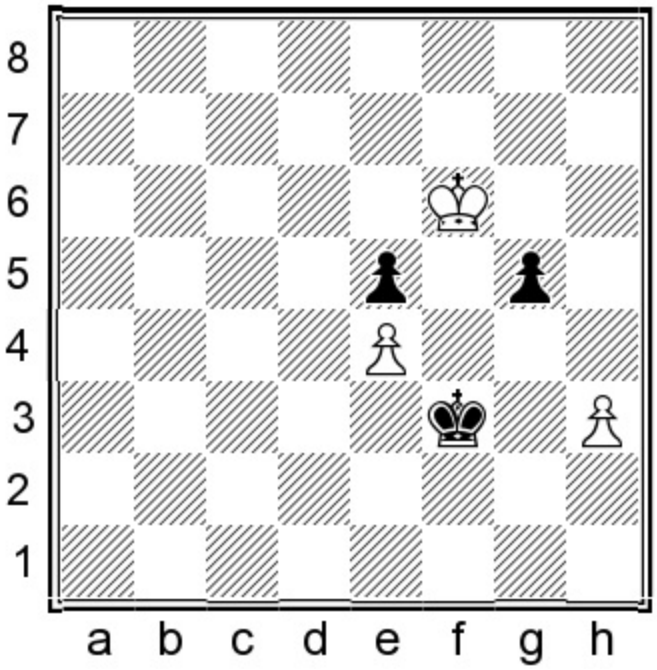
3) Calculation in Endgames

Endgame calculation is also essential, as every decision may change the result of the game. Take Puzzle 10:



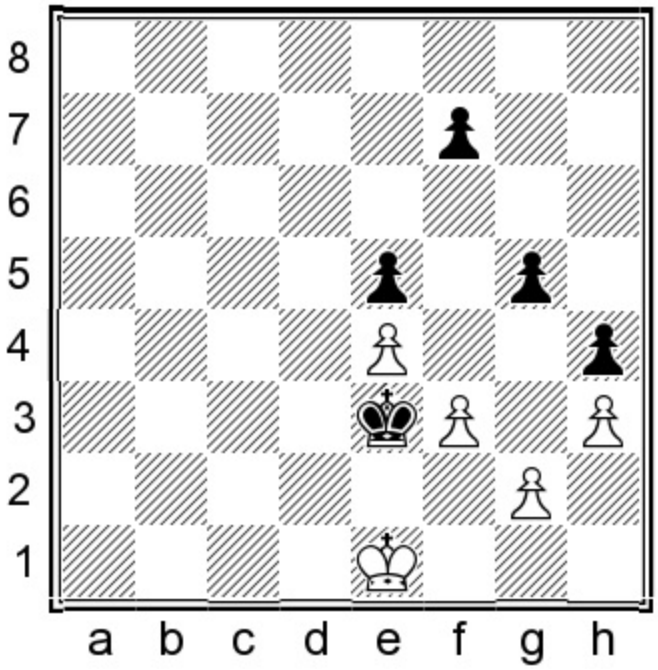
I noticed some rather vague comments, such as "...and sort of wait and see what Black does" (Akshaya), and "...and see what happens" (Harriet). Everyone has been guilty of similar casualness in their thinking process at one time or another, but whenever I have thought in those kind of woolly terms in challenging endgames, the results were not pretty. One good concrete question that should be settled here, which they and several other players did not attempt to resolve seriously enough is: can White queen the d-pawn or not?

Puzzle 19 is another example where a little calculation makes all the difference:



After 1...♔f4 2.♔g6, simply stopping to look for any alternative to 2...♔xe4, and hence a little bit of analysis to evaluate 2...g4, could change the whole picture. Black doesn't have many candidate moves to consider there!

Puzzle 24 features another king and pawn endgame:



Checking out the possibility of 1...g4 again pays important dividends. Similarly, there aren't a huge number of possibilities available to think about in that position.

In all three of the above puzzles, one idea wins and all the others lead to a draw. In endgames, decisions have high stakes, frequently changing a position from winning to drawn (or even losing), or vice versa. Better calculation serves stronger players very well in endgames, where they often pick up a lot of points – especially when fatigue may have sapped the will of lesser players to maintain a high work rate.

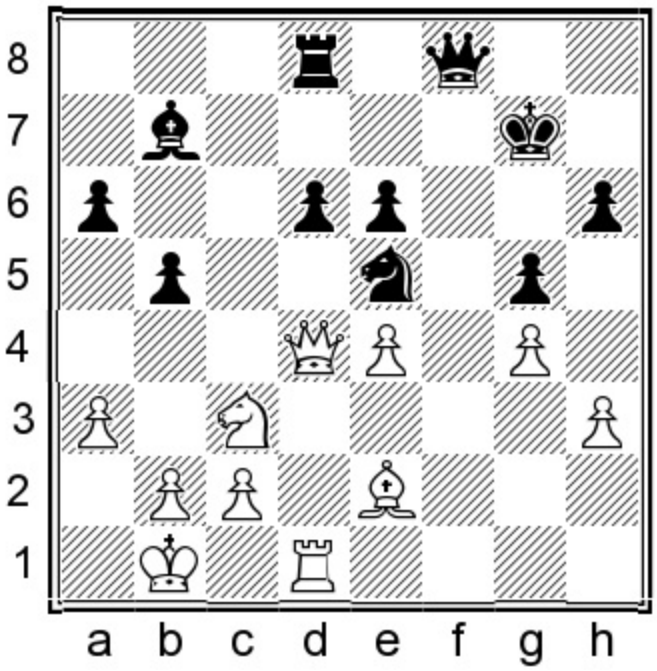
"Take care in 'dead drawn' positions; it only takes a few errors for the position to be 'dead' rather than 'drawn'."

The witty remark by John Nunn is a good reminder of how earlier hard work can be spoilt by errors late on.

4) Look Before You Leap

When deciding on a move that changes the material balance, the structure or the nature of play, or when faced with a very complicated or committal decision, spend a reasonable amount of time thinking. The consequences of playing such moves are very high, so give yourself a chance to reconsider before deciding.

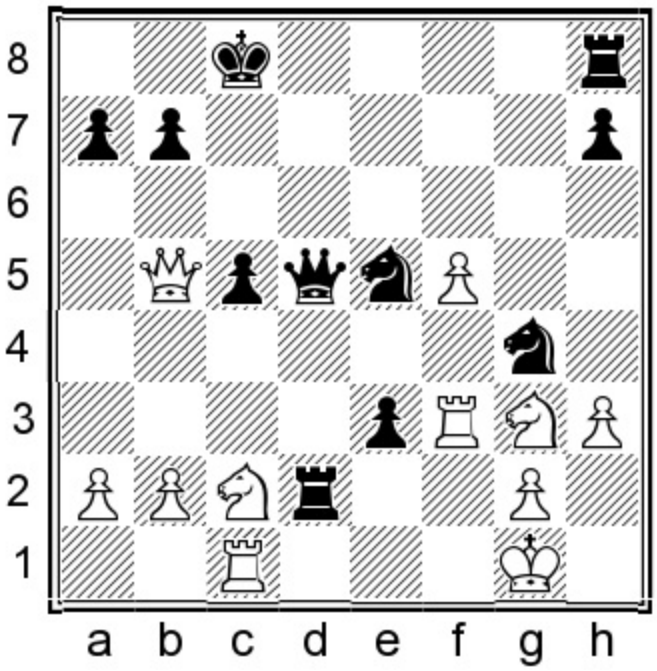
Take Puzzle 21, for example:



Tony Sadler goes for a game-changing piece sacrifice, commenting: “After 1.♗xb5 White has reasonable chances. And he gets enough material for the piece.”

To take such a large decision without much clarity about the outcome, while a lot of other good options exist, after thinking for only five-and-a-half minutes, was rather reckless. This error was magnified by the fact that not much of that short amount of consideration was spent thinking about the outcome of the move he actually selected.

In Puzzle 8 there was an even more extreme example:



John Green settles for the losing 1.♘xe3 after pondering for only two minutes in this horrendously complicated position. I think even the very best players in the world would struggle to get anywhere near to resolving this one in that time frame.

It's true that Jesús Cao chose the same losing move, but at least by thinking for fifteen minutes he gave himself a fighting chance to find a better move, and made a genuine effort to try to get to grips with this very difficult position.

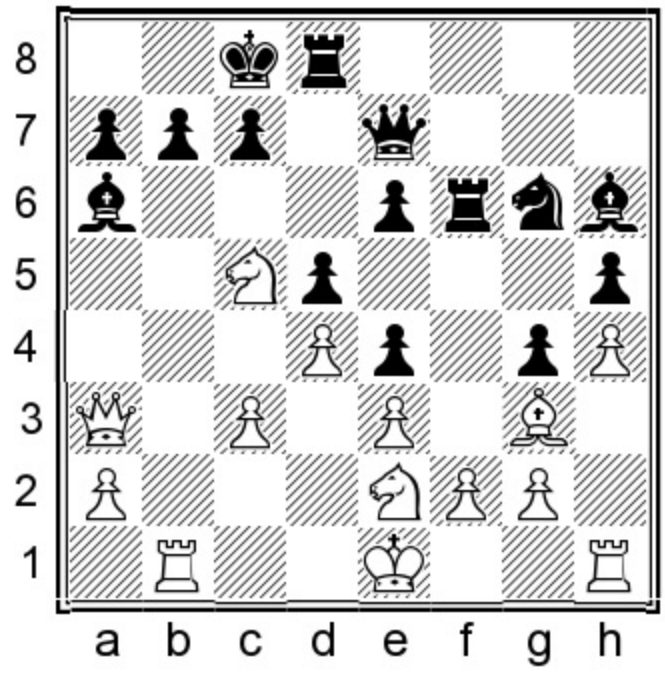
5) Sense the Moment

This can apply to various scenarios, which will be discussed one by one.

Tactical opportunities

Stronger players seem to have a sixth sense when a strong idea could be available. Even if they don't find it quickly, they are reluctant to call off the search too early. It's true that this instinct may have been amplified when solving puzzles for this book, but stronger players are generally good at this in my opinion. Examples of this kind of tactical perception include Granda struggling for some time with the breakthrough 1...g4 in Puzzle 24, and Juan Reyes using his intuition to persevere and eventually find 1...b5 in Puzzle 31.

Puzzle 7 shows this in reverse:



After the chance had gone begging during his game, Phil states in his commentary at the end of the solution: "The funny thing is that if I were shown this position as a puzzle, I would have definitely found 1.♖xb7, as did all the players I showed it to."

The lack of defenders around Black's king, and the large number of potential attackers – especially the powerful knight on c5 – should have served as a clue.

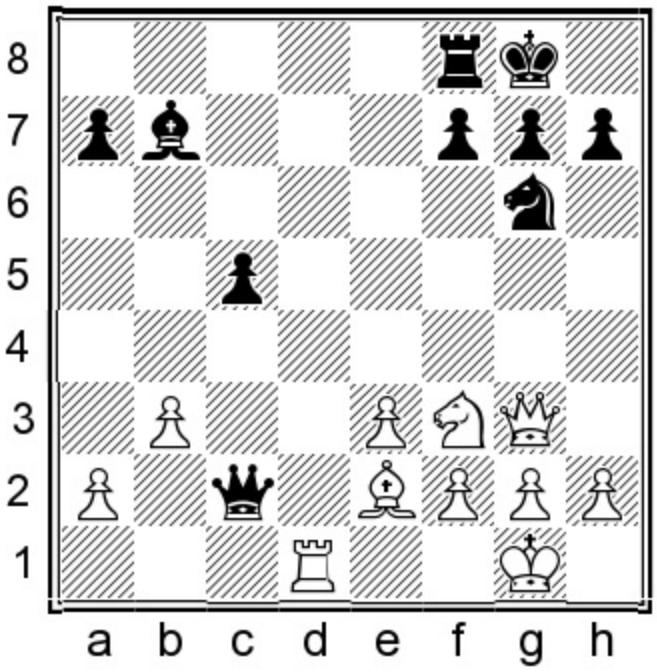
Prophylaxis

"Tactics is knowing what to do when there is something to do; strategy is knowing what to do when there is nothing to do."

This snappy quote from Savielly Tartakower neatly outlines the problem, but doesn't take us closer to a solution. Prophylaxis is clearly a tricky issue for weaker players: there seemed to be a big gap in terms of successful answers in this type of puzzle. Your intuition is key in letting you know when is the right moment to take time out to consolidate. Ruining your opponent's fun by tidying up your own position before proceeding actively is an important skill, which will prove invaluable in practice. It makes it more difficult for you to blunder, as you reduce the dynamism of your adversary's play, and it can be quite dispiriting for the opponent, as their active possibilities evaporate. Sometimes just maintaining the tension can induce a mistake if your opponent doesn't have a clear way to proceed. This is clearly not an easy thing to judge, and also fits with Phil's theory that stronger players pay more attention to their opponent's plans.

Two good examples were found in Puzzle 14 and Puzzle 32, both rather appropriately taken from the games of Magnus Carlsen, who is the absolute king of prophylaxis. Remember that tucking your king away from annoying checks is often a sensible choice in practice.

A similar point was true in Puzzle 3:

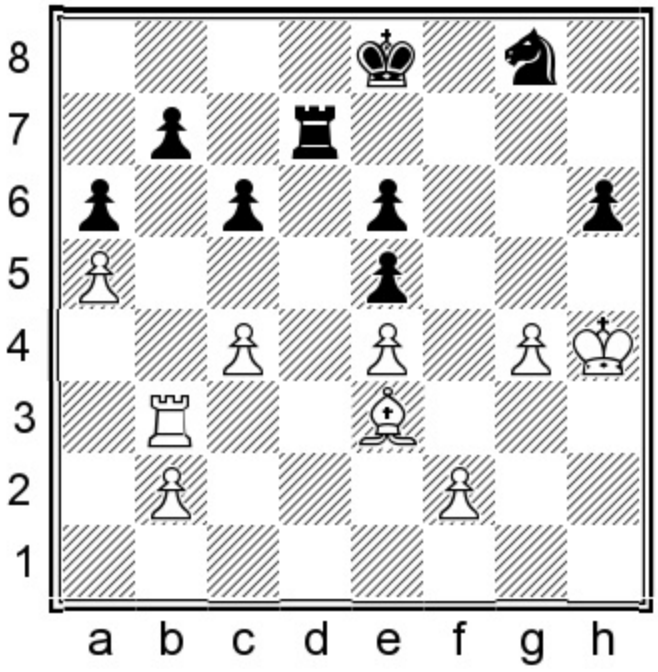


Weaker participants were reluctant to start with the consolidating move 1.♖e1 before undertaking active measures. In these puzzles Black has one main idea, and preventing that should be prioritized.

Sensing when the best move has been found

An interesting point is that stronger players are good at immediately appreciating the strength of a move, even if has taken them some time to spot it in the first place. Take Julio's comment after he

had been thinking for some minutes about Puzzle 40:

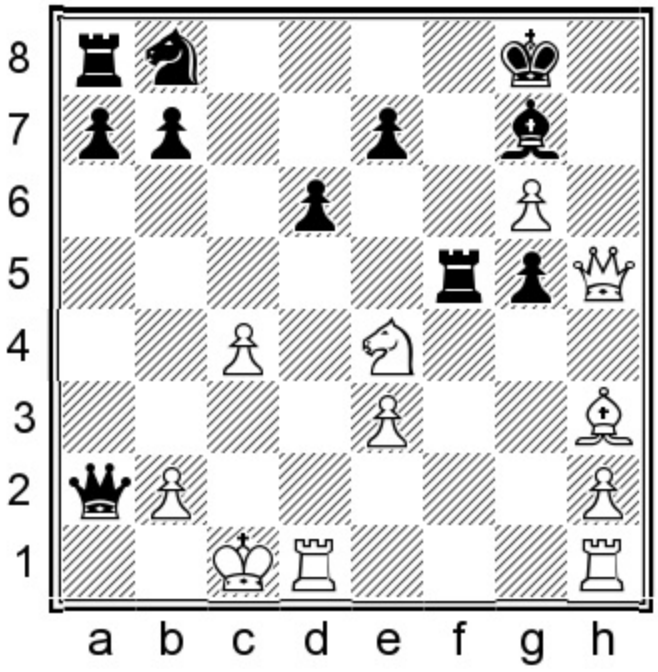


"Ah! I solved it! What a nice move. Do you know what the nice move is? 1.♗a7! Really nice."

After writing this I noticed that Andrew McCumiskey was equally happy when he spotted this move. "Say, 1.♗a7. Oh! That looks horrible for Black."

Maybe 1.♗a7 is just a 'feel good' move! Phil later confirmed this was the case in this position with his summary of other comments. Still, I think this is an area where stronger players generally outperform.

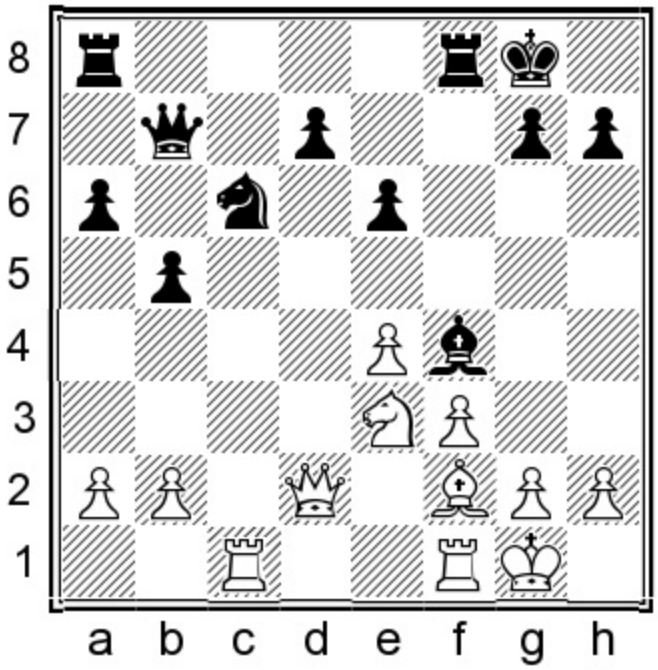
Another example of knowing when you have found the best move is Keith in Bonus Puzzle 48:



After thinking for more than seven minutes and finally hitting on the right move, he comments: “You know when you see a move for the first time and it feels right? 1.♖d4 is one of those moves.” He was very content to block that long diagonal.

6) Don’t doze off and allow tactics to sneak up on you

Sometimes players class a position as quiet, and then turn down their tactical radar and stop looking seriously at combinational ideas in order to concentrate on strategy. The deceptive nature of the position in Puzzle 30 is also mentioned by Phil early in Chapter 4.3 on page 379:

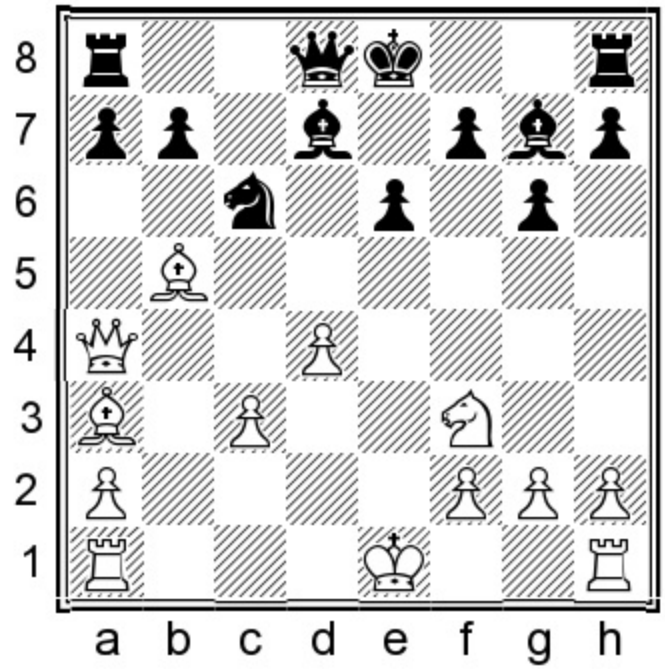


Some players were tempted to chase the bishop with 1.g3, which completely changes White’s solid pawn structure. Julio and I were alert to the promising new possibilities for Black opened up by this move. Once White begins by weakening the pawn on f3, with a knight already in prime position to jump to e5 and Black’s queen on b7 lined up on the long diagonal, danger bells start ringing. When the f-pawn advances it leaves the pawn on e4 vulnerable, and White’s solid light-square control has suddenly disappeared. The pin exerted by the bishop on f4 can still be relevant, so I was already suspicious of weakening the base of White’s pawn chain, and it’s clear that you need to start checking lines very carefully. There are very few positions in chess where the play is exclusively positional or tactical, and thinking in such a fixed way is normally a bad sign.

It is also worth noting a related line from the above position, where White takes prophylactic measures by means of 1.♖cd1 ♘e5 2.♕e2 ♖ac8 3.g3 ♗h6 4.f4 ♕xe4 5.fxe5. This is an important variation which now works out for White, because the rook is on the safe light square d1, showing that accurate calculation is very useful in this apparently tranquil middlegame. The prophylactic moves ♖cd1 and ♕e2 tip the balance in this tactical sequence, by negating the power of the black bishop.

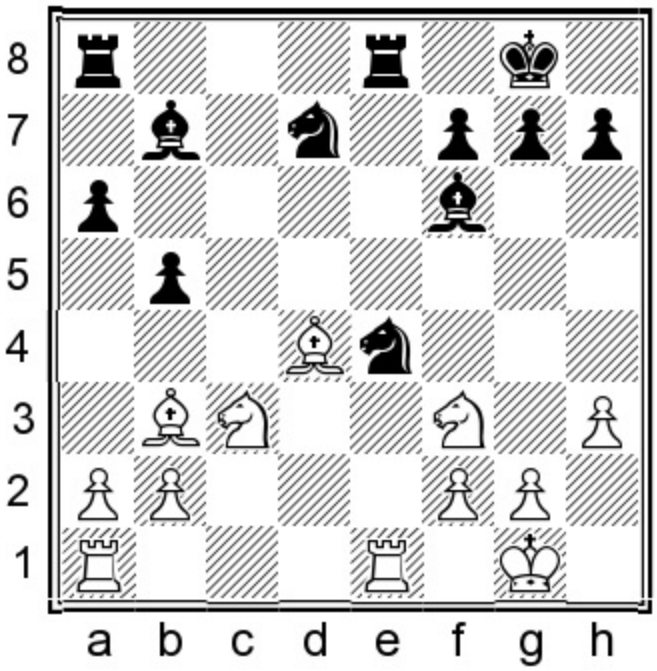
7) Look at all the evidence to weigh up the assessment

A common problem for weaker players is that they tend to base their view too heavily on one advantageous feature, which can lead them to overestimate their own position. In reality, especially in non-forcing positions where both sides have certain positives and many options are available, matters are complicated. Take Puzzle 14:



The fact that Black can't castle led several players to ignore many other relevant factors, especially the threat of ...a6, and as a result they greatly overestimated White's chances. Agnieszka gave 1.0-0 as +2.0, while Louise chose to castle on the other side, with the also pretty hopeful +0.8.

In addition to excessive optimism, sometimes I feel people just want things to be simpler than they actually are. Take Puzzle 23:

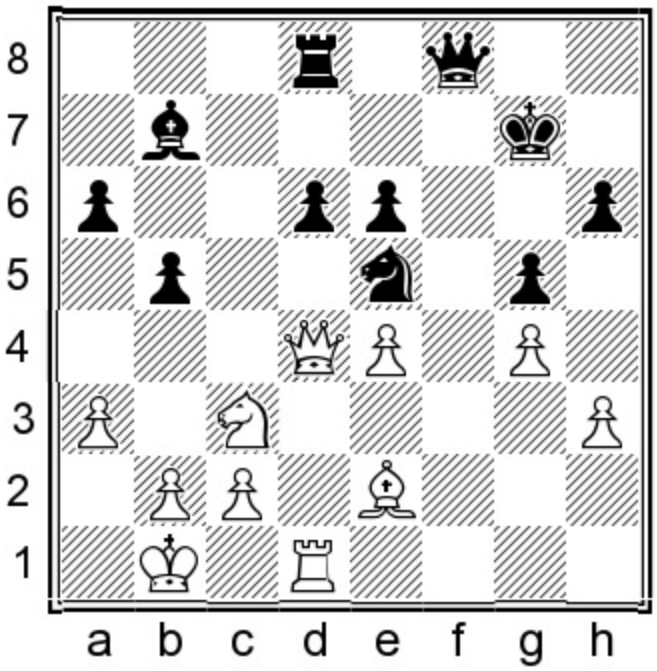


After spotting the idea of 1.♗d5 and checking a few brief lines, McCumiskey says: “Yeah. He is toast! 1.♗d5 winning for White.” with an evaluation of +3.0. He was certainly in a cheerful mood at that moment!

I can’t speak for Andrew, but he might well respond that even if his assessment got a bit hopeful, at least he found the best move, unlike me – which is a fair point!

8) Don’t be distracted by one-move threats

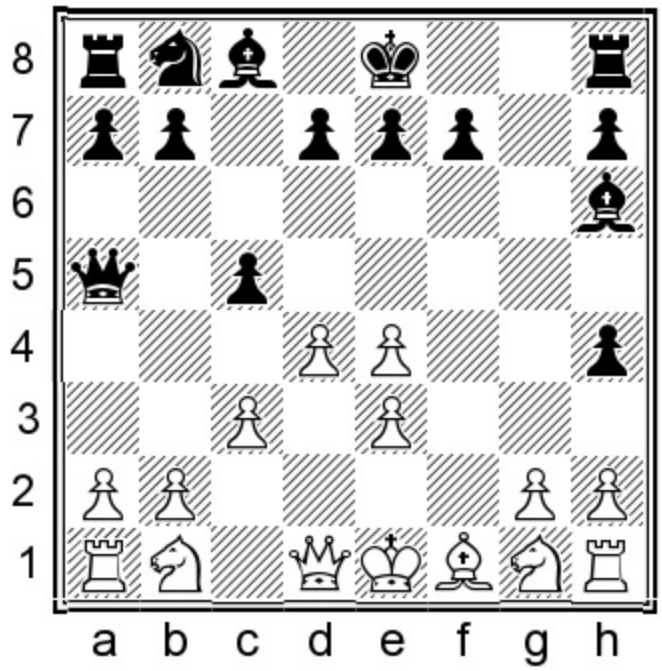
It was noticeable that weaker players were frequently attracted by short-term threats which were not part of a coherent plan. Take Puzzle 21 for instance:



1.♖f1 only pushes Black's queen to a better square on e7, and it was normally played without a follow-up in mind, once Black makes the obvious response.

Something similar happened in Puzzle 22, where 1.♘c4 tempted some players due to the fact that it menaces 2.♗xd6, but once that is easily parried the knight impedes the queenside pawns, which White could otherwise have used to advance against Black's king.

Puzzle 4 was a similar story:



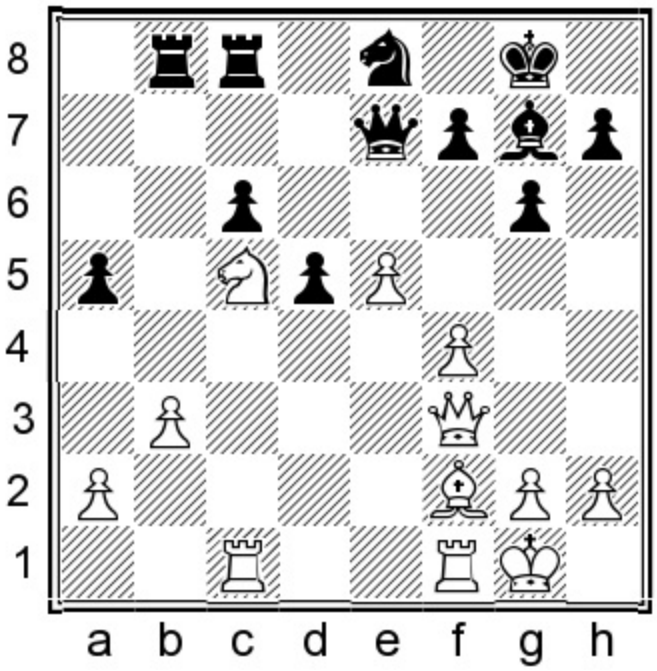
The desire to target the pawn on f7 caused many players to jump in with any of 1.♕f3, 1.♕h5 or 1.♗c4, rather than attending to White's lagging development and vulnerable dark squares.

Looking a little deeper into the variation reveals that Black could often simply ignore the threat in order to focus on destroying White's centre and/or other dark-square weaknesses. Once the queen landed on f7 and the king moved to d8, there wasn't much else for White to do.

9) See the whole board

Certain moves seemed to be outside the range of vision for most. Puzzles that proved particularly tricky in this regard were Puzzle 31, where the pieces sweep around the board from the initial position, and Puzzle 33, where the crowded board proved problematic to negotiate. In both cases the power of a backwards bishop move, covering a lot of territory, was underestimated or missed.

Puzzle 16 is a slightly different type of scenario:



Some players even came up with the correct move 1.♕h3, without noticing that the main idea of this sneaky move is the annoying long-range threat of ♘d7, winning an exchange by force.

10) Prioritization and breaking the rules

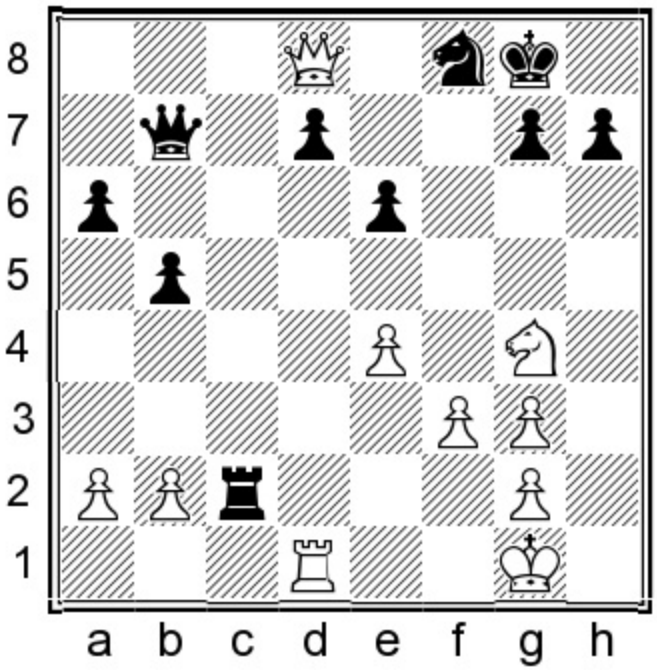
The most surprising discovery for me during the work on the book has been that a common source of mistakes is rejecting a move on the basis of a relatively unimportant reason. There are a few aspects to this, but I have grouped them into four sub-sections.

A move doesn't feel impressive enough, or another idea is a bit too exciting

In Puzzle 3, the consolidating move 1.♖e1, avoiding the repetition, was often rejected for being too passive. This underestimated the potential of White's position over the next few moves.

In Puzzle 4, the developing 1.♘d2 was less tempting to many players than immediate attacking ideas. Part of the problem was overestimating the strength of White's visually impressive pawn centre, not realizing how vulnerable it could be in the near future.

Puzzle 32 was another example of this theme:



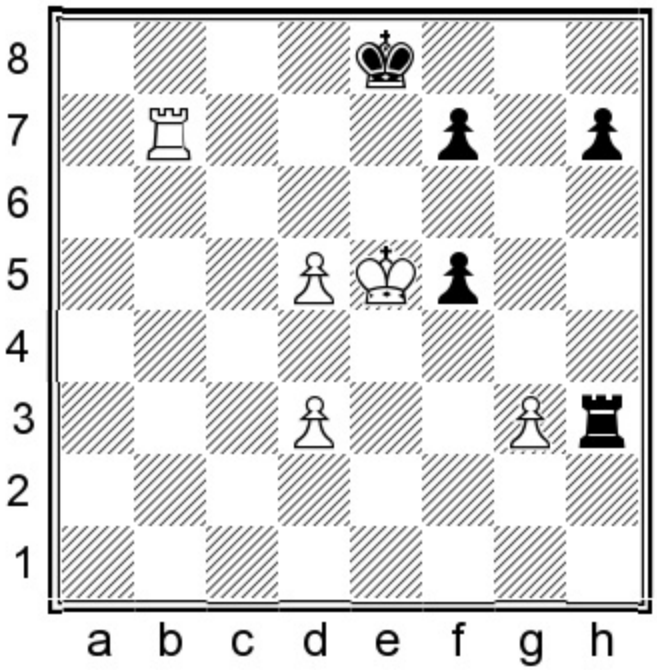
Putting White's king safe from checks is the strongest move, but it was all too easy to get tempted by direct attacking attempts.

Failure to take into account the opponent's intentions

In Puzzle 13, securing White's king with 1.♕d7 is necessary to prevent perpetual checking defences before White goes about his own active plans. Likewise, in Puzzle 14 White needed to recognize and respond to a threat, in this case Black's idea to challenge the bishop with ...a6.

Reluctance to calculate far enough

Puzzle 10 is a good example:



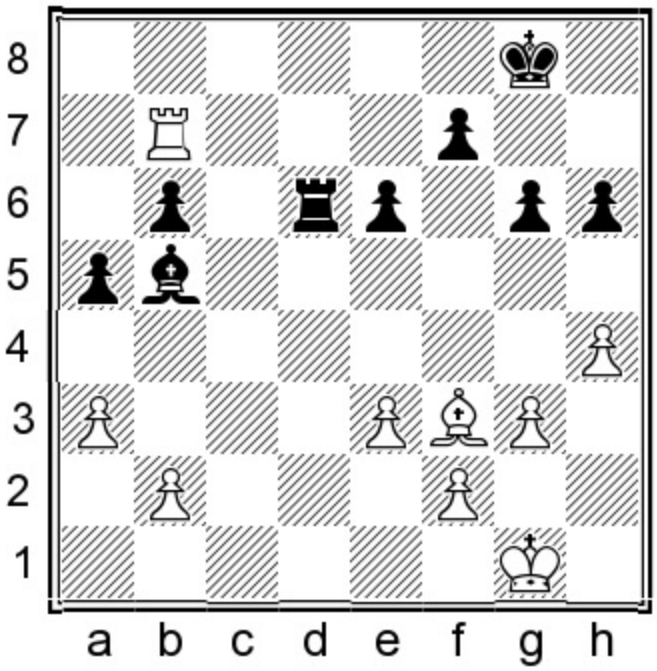
The winning move 1.♔d6 wasn't investigated carefully enough. The same problem also cropped up in other endgames.

Hamstrung by earlier chess education

Even more unexpected to me was the fact that some good general chess wisdom, involving obeying general principles or rules of thumb that had been learnt, was frustratingly frequently the cause of a strong continuation being spurned. A little knowledge is a dangerous thing! The issue seemed to be that once a move was seen to break a popular adage, this was often considered sufficient reason to abandon the line completely, without any further investigation.

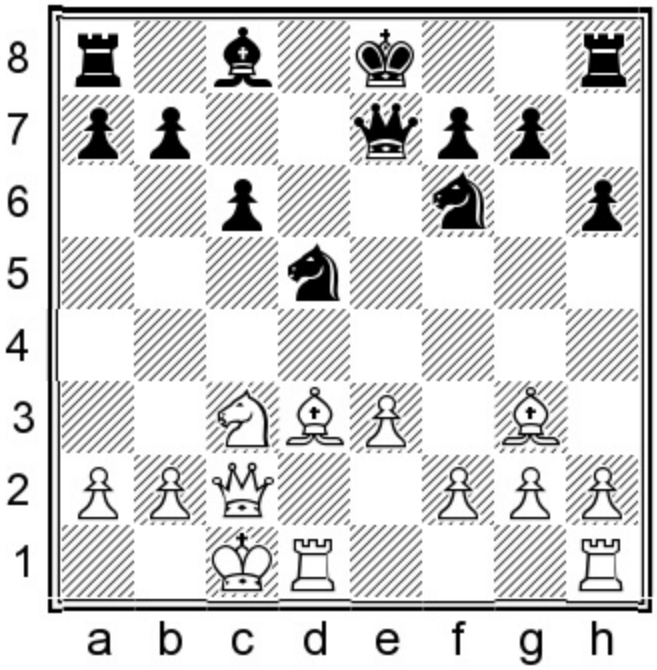
Bear in mind that if you watch top games you will see typical rules breached quite regularly, but there will almost always be some sound logic behind this decision. So try to remain more open to such possibilities in your own games: there could be a promising trade-off available.

Let's see some examples from the puzzles where this caused problems, beginning with Puzzle 5:



The promising plan beginning with 1...a4 was widely rejected, as it contravened the advice to avoid placing pawns on the same-colour square as your bishop. In this case the move didn't leave the pawn weak, or reduce the scope of the black bishop – and once Black follows up with ...♗c4 and ...b5, a strong, mutually supporting unit is created, where the bishop and pawns secure each other – something only possible when the bishop is on the same-colour square as the pawns.

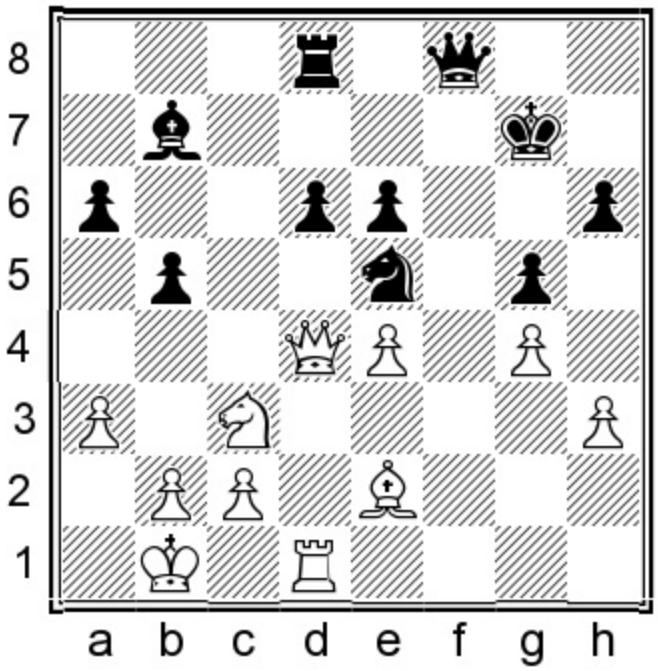
Take Puzzle 6 for another example:



The direct 1.e4 was frequently rejected without much thought, as it allowed Black to trade a knight to deprive White of the bishop pair. Here the key line involves a trade-off after calculating a bit longer: 1.e4 ♘b4 2.♕e2 ♘xd3† 3.♕xd3 and it is clear that Black's king is stranded in the centre, so the bishop pair has been traded for another type of advantage: one that would be covered by

another ‘rule’ about preventing your opponent from castling and catching their king in the centre!

Puzzle 21 has already been noted for the way it lured players into making a pointless one-move threat, but it also exposed another type of flawed thinking:



The strongest continuation of 1.a4 was often avoided as it marginally weakens White’s king position, but this is a minor factor as Black is not active enough to muster an attack, and the positive aspects of the move are substantial.

***

The only real solution I can see to these issues is working harder at the board. Specifically, this means not rejecting variations too quickly or dogmatically, and being willing to extend variations a bit longer. Sometimes you don’t need to look all that much further to start seeing the resulting position in a different light. Calculation is far from my favourite thing, but often it really is required!

Part V

Eyetracker Experiment

Chapter 5.1

Introduction by Michael Adams

I had the idea to incorporate an eyetracking element into these puzzles after recalling watching a documentary breaking down Cristiano Ronaldo's football skills using a variety of cameras and software. This was quite intriguing to watch, even if you are not a massive football fan. I had heard of other similar experiments in chess using modern technology, and was keen to experience this first-hand. Phil was also enthusiastic, and managed to set up a day's testing for us.

The venue was rather less high-tech than I had initially been expecting: an upper floor of a nondescript office block, not far from Reading train station. Although a multitude of cameras, headsets and other electronics had been required to work out where Ronaldo was looking when going up for a header, or nutmegging an adversary, the rather more stationary nature of chess thinking apparently simplified technical matters. In fact, the equipment to carry out the experiment really only required a computer aligned with a camera, in order to follow our eye movements around the screen while we solved the puzzle positions.

To achieve this, the participants initially focused on the squares in the corners of the board, while the technician confirmed that the camera was tracking our eye movements reliably. With the orientation

phase completed, the puzzle positions appeared on the screen.

Although the process was not too dramatic, the results were quite striking. This resulted in heat maps showing the squares on the board which players focused most heavily on. It also produced real-time video footage of the eye movements of participants during the puzzle solving, which was especially interesting in the early stages of the solving process, when it created some instructive freeze frames.

It was a bit unusual to be monitored while thinking in this way, but perhaps it aided rather than detracted from performance, as there was good motivation to maintain concentration. In general there was a decent success rate for most players when solving the puzzles, so concentration was probably not negatively affected.

Chapter 5.2

Introduction by Phil Hurtado

After Michael suggested the idea of conducting an eyetracker experiment, I got in touch with Tobii Pro, a company that specializes in eyetracking hardware and software, which is used mainly by businesses, as well as for scientific research. There I was put in contact with Dr. Ben Marshall, who is now a lecturer in Sport and Exercise Psychology at Manchester Metropolitan University. Ben helped me to set up and conduct the eyetracker experiment at Tobii Pro's main office in Reading.

For the tests I decided to select seven players in different rating categories, from lower club level all the way up to Super-GM level, in evenly spread Elo rating intervals. Due to time limitations, this was the maximum number of players we could test on the day.

Because of the venue for the tests, I decided to get in contact with Reading Chess Club to help me select three candidates of varying playing strengths in different rating bands. The three club players who only solved the eyetracking puzzles were Witek Koreywo, Gabriel Wolf and Matthew George; their biographies are on the next page. You are already familiar with the other four solvers: Louise Head, Akshaya Kalaiyalahan, Keith Arkell and of course Michael Adams.

Due to the limited time available, each player only had a maximum of one hour while their eye tracking was being recorded. However, as some participants took more than an hour to get through the puzzles, we don't have their heat maps available for all the positions. Those players did still give their answers, which are published in the book, but only afterwards when their eye tracking was no longer being recorded.

With hindsight, it would have been good to conduct the experiment over two days rather than one, allowing additional eyetracking time for the players who needed more than an hour. The extra time would also have made it possible to broaden the range of players even further, possibly by testing players with Elo ratings below 1400. It seems very plausible that those amateurs will look at a wider area as they try and figure out which are the best moves to play, creating an even greater contrast with

GMs who tend to remain more narrowly focused on the most critical line of play.

I thought it would be useful to compare the final best line selected by the participants after solving the puzzles to their own heat maps. To achieve this, I asked each player to give what they viewed as the best sequence of moves in each position. As with the earlier puzzles, I also asked players to provide an assessment, all of which can be found in the puzzle solutions.

Chapter 5.3

Solver Biographies

As mentioned previously, Louise Head, Akshaya Kalaiyalahan, Keith Arkell and Michael Adams are the solvers from the main experiment who returned for the eyetracking test. They were joined by the following three players from Reading Chess Club.

Witek Koreywo (Elo 1601)
Witek was born in Gdynia, Poland, and is married with a son. He was awarded a Bachelor of Science degree in Botany at Hull University, and had a very successful career in IT.

Witek began playing chess at the age of thirteen at Great Yarmouth Technical High School, and joined Reading Chess Club in 2009 after retirement, returning to the game after a 27-year break. He had to learn algebraic notation, as when he had last played descriptive notation was used!

Witek captains three of the Reading teams in the Berkshire League, and has played in the amateur tournaments at the Gibraltar Chess Festival for the last eight years.

Gabriel Wolf (Elo 1911)
Gabriel was born in southern Germany in 1986. He learnt chess at an early age, winning several youth tournaments and joining the Bavarian youth squad. He stopped playing chess at the age of thirteen in favour of another passion: competitive sport in artistic gymnastics, where he competed at a high level – the first division of the German Bundesliga.

Gabriel broke his chess hiatus while working on his degree in Meteorology at the University of Mainz after stopping competing in gymnastics at the age of 22. Gabriel moved to the UK in 2015 to take on a position as post-doctoral researcher at the University of Reading. Since then he has been a member of Reading Chess Club, playing in the Berkshire and Surrey Border Leagues, as well as in the 4NCL.

Matt George (Elo 2009)
Matt lives with his partner and son in South Oxfordshire. He works as a writer and editor for an English language teaching publisher, based in Reading.

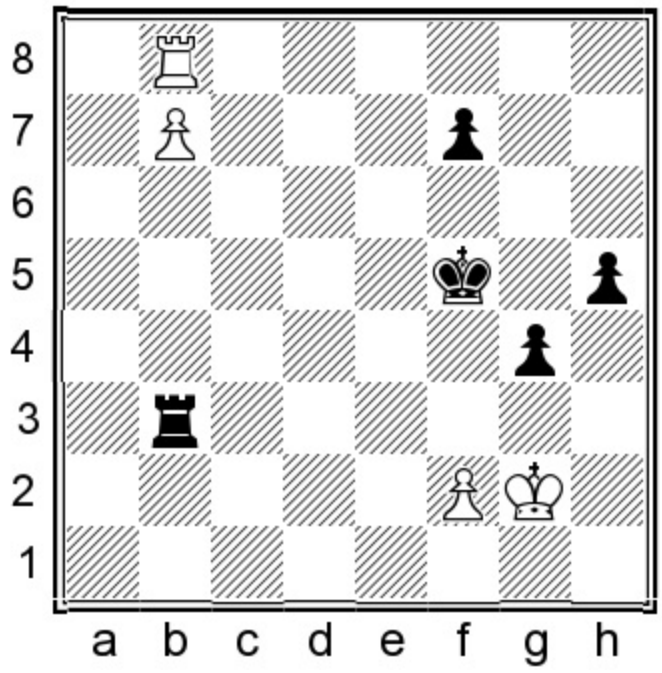
Matt plays for Reading Chess Club in local leagues, and for the Fermented Sharks in the 4NCL.

He also plays in the annual European Rapid & Blitz Chess Championships whenever his schedule permits. Outside of chess, Matt enjoys running, punning, playing the guitar and supporting his hometown football club, Wycombe Wanderers.

Chapter 5.4

Eyetracker Puzzles

Warm Up



Black to play – Warm Up!

Show/Hide Solution

This experiment was all about the eyetracking, so we did not record solvers' detailed thought processes in the way we did for the main experiment and bonus puzzles. So this time, the answer section will only show the choice of move, assessment and best line of play according to each solver. The main focus of the experiment is the heat maps produced, which we will see later.

The warm-up position was used to make sure the technology was working effectively, so Michael's answer was the only one saved.

Michael Adams (Elo 2701)

1...h4 2.♖h8 h3†
Evaluation: –4.0

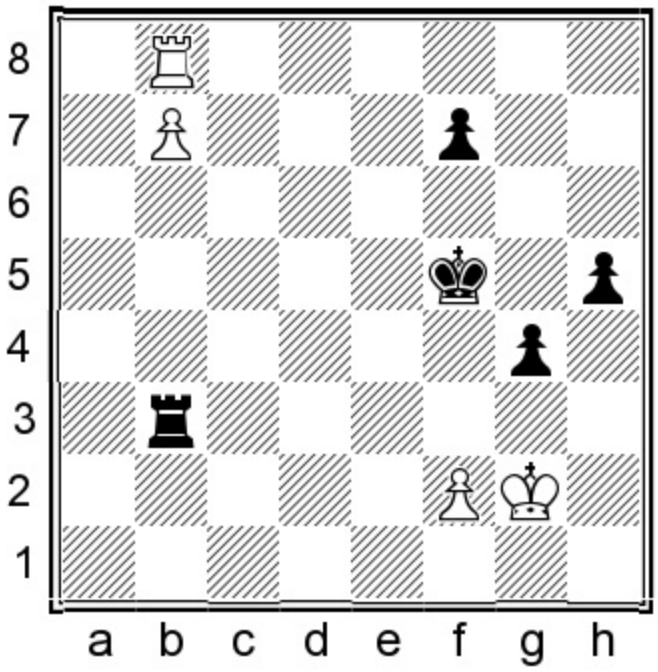
Stockfish
1...h4 (–6.0)

Securing the h-pawn wins easily. It is worth noting that all other moves allow White to save the game.

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



Another rook and pawn endgame, where a tactical finesse is important. A pawn on the seventh, which is being prevented from queening by its own rook, is not necessarily strong, unless you can successfully engineer a check in order to free the rook without the pawn being captured. As that isn't the case here, White's only real hope is to salvage a draw by swapping the b-pawn for Black's h-pawn.

1...h4!

Black shouldn't allow White a chance to escape by grabbing the h-pawn: 1...♔f4? 2.♖h8! ♖xb7 3.♖xh5 f5 (3...♖b2 4.♖a5=) 4.♖h8 ♖b2 5.♖a8 should be drawn.

2.♔h2!

The trickiest defence.

If 2.♖h8 h3† Black saves the h-pawn with check, and 3.♔h2 ♖xb7 4.♖a8 ♔f4 wins easily.

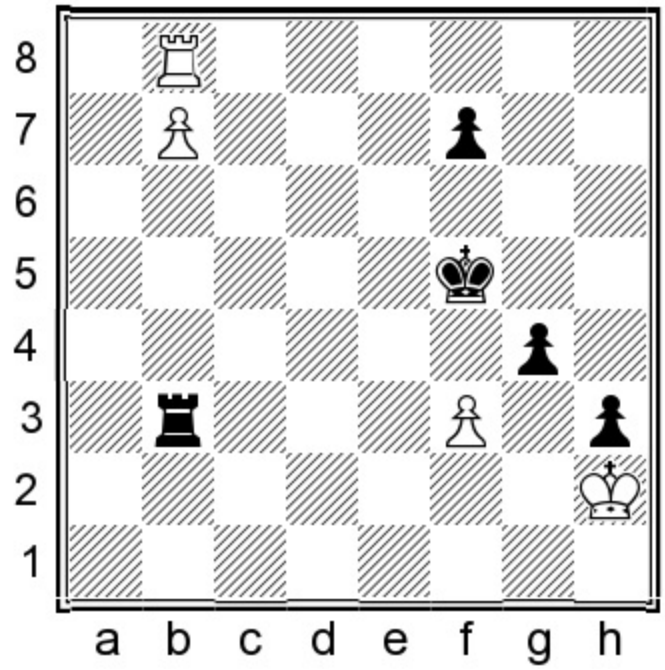
2.f3!? h3† 3.♔h2 transposes to the main line.

2...h3

The only winning move.
2...♖b2? 3.♖h8 saves the day, with the check no longer available.

3.f3

Otherwise Black will gradually win step by step, and White has hardly any moves in any case.



3...♖b2†

Again the only way to win, but the variations are not too difficult.

4.♔g3

4.♔g1 g3 5.♖g8 ♖b1#

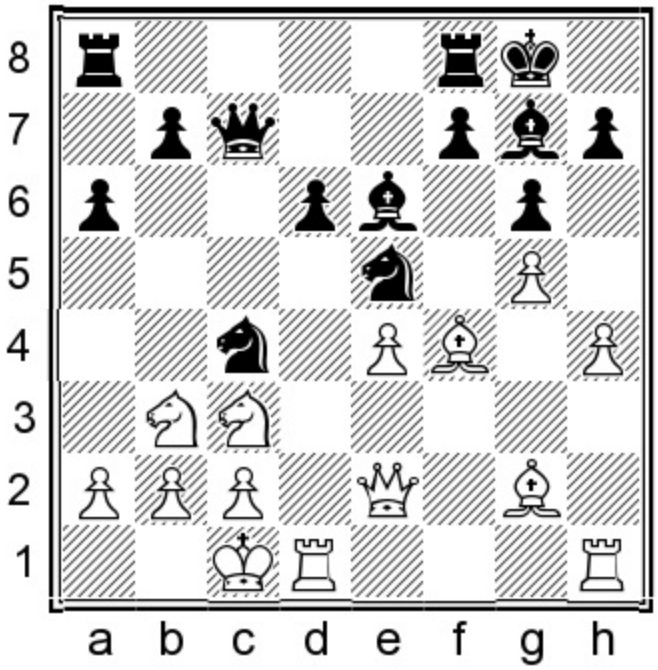
4...♖g2† 5.♔h4 h2

And Black will promote with mate.

Adams Insight

The pawn on the seventh isn't too dangerous due to the dominant position of Black's rook, and the fact that Black's king is safe from checks. With Black's pieces well placed, it is clear the time is right for the pawn to advance, aiming to nudge forward again with check next turn, securing the one weak vulnerable link in Black's position.

Eyetracker Puzzle 1



Black to play

Show/Hide Solution

Answers

Witek Koreywo (Elo 1601)
1...♘xb2 2.♔xb2 ♘d3†
Evaluation: –0.2

Gabriel Wolf (Elo 1911)
1...♘xb2 2.♔xb2 ♘c4† 3.♔c1 ♗xc3
Evaluation: –1.2

Matthew George (Elo 2009)
1...♗g4 2.♘d5 ♕d8 3.♕f2 ♗xd1

Evaluation: –1.2

Louise Head (Elo 2090)
1...♗g4 2.♘d5 ♕d8 3.♕ moves ♗xd1
Evaluation: –1.8

Akshaya Kalaiyalahan (Elo 2149)
1...♘xb2 2.♔xb2 ♘c4† 3.♔c1 ♗xc3
Evaluation: –1.0

Keith Arkell (Elo 2429)
1...♘xb2 2.♔xb2 ♘c4† 3.♔c1 ♗xc3
Evaluation: –2.0

Michael Adams (Elo 2701)
1...♘xb2 2.♔xb2 ♘c4† 3.♔c1 ♗xc3
Evaluation: –4.0

Stockfish
1...♘xb2 2.♔xb2 ♘c4† (the most human choice, but 2...♖ac8 and 2...♖fc8 are also crushing) 3.♔c1 ♗xc3 (–5.0)

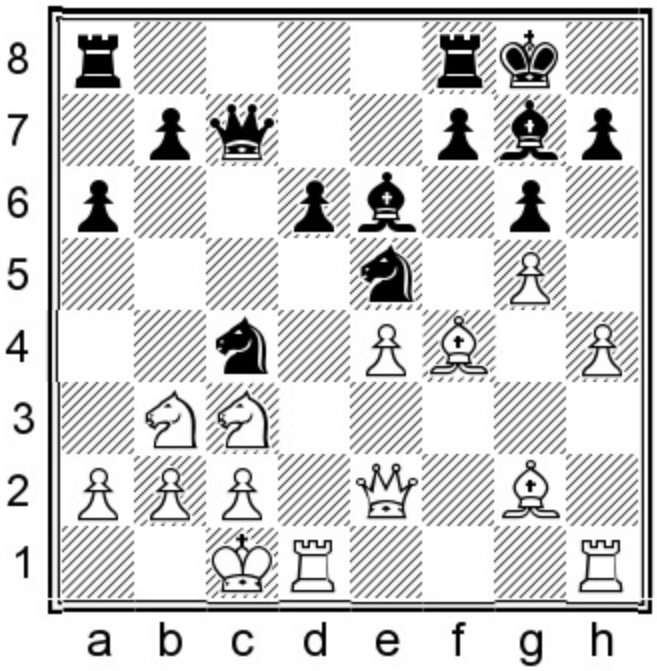
The immediate breakthrough 1...♘xb2 is best, although Black's position is so strong that other preparatory moves are also winning. The materialistic 1...♗g4, although advantageous, is not as impressive.

Deeper Analysis by Michael Adams

N.N. – Peter Svidler

Internet (blitz – year unknown)

The game is from one of Peter Svidler's "Banter Blitz" sessions watched by Phil, although Phil cannot recall the year (2016 onwards is his best guess).



Black's bishop on g7 is the most important piece here, enjoying an unobstructed view down the long diagonal. The other minor pieces also have fine locations; one black knight has a solid outpost on e5, and the other has a great attacking staging post on c4. By means of a fairly straightforward tactic, the white king will be lured into their sights. Black will regain the material immediately, leaving White's queenside a smoking ruin.

1...♘xb2!

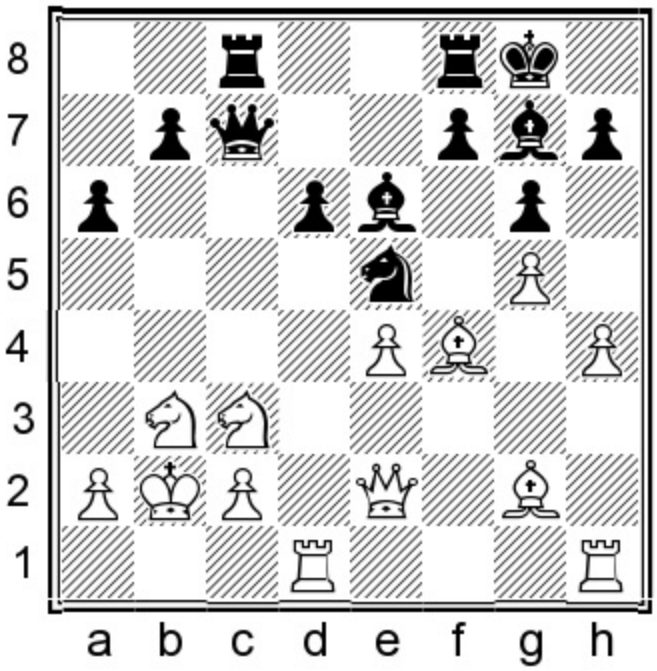
1...♗g4?! wins the exchange, but decimating the pawn cover is a far greater prize. 2.♘d5 ♕d8 3.♕e1 ♗xd1 4.♕xd1 is a little more hopeful for White.

Black has a number of other good continuations available, but the capture on b2 is obviously the strongest.

2.♔xb2 ♖ac8!

2...♘c4† is the simple intended follow-up of the players who did the puzzle, regaining material immediately. 3.♔c1 (3.♔b1 ♘a3† 4.♔b2 ♕xc3† 5.♔xa3 ♕b2† 6.♔a4 ♗c3–+) 3...♗xc3–+ This is also more than good enough to win.

The computer points out that the text move, bringing another piece into the game, is an even better way to pick up the knight. There is no good way to defend it, and moving it allows a deadly discovered check.



3.♘d5

3.♕e1 ♘f3! and 3.♗d2 ♘c4† are also crushing.

3...♗xd5 4.exd5 ♘d3† 5.♔b1 ♘xf4–+

Black is a pawn up with an overwhelming advantage, due to the hopelessly weak dark squares.

Puzzle Commentary by Phil

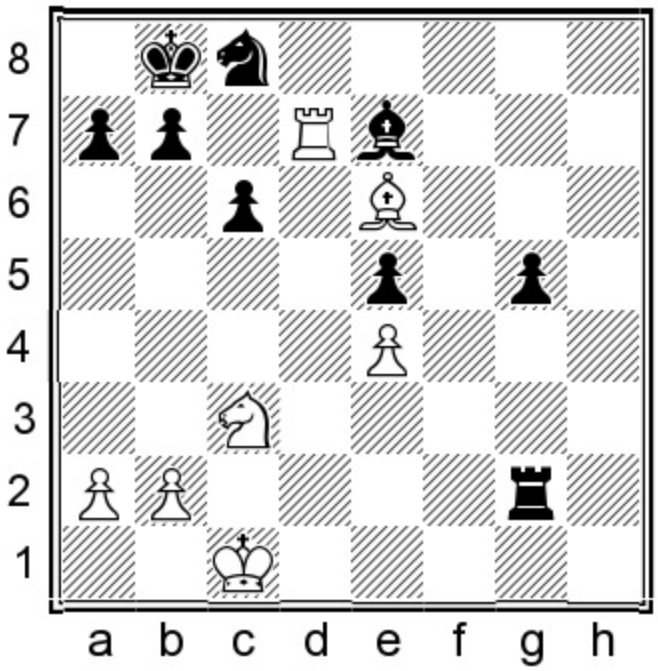
I watched online this blitz game in which Peter Svidler was playing Black. I was staggered that Peter played 1...♘xb2 within seconds, as this concept wasn't so obvious to me. I was curious to see what players' eye movement would look like when sizing up this tactic, and how long they would need to focus on that part of the board before finding it.

Adams Insight

Either a knight on c4 or a bishop on g7 in a Sicilian, pointed in the direction of your king castled on the queenside, is a warning sign, but both at the same time spells real trouble. There are also many other active black pieces: the other knight on e5 is ready to replace its colleague on c4, and the queen on c7 is ready to join in the attack, while the bishop on e6 is also harmoniously placed. In contrast, some white pieces are ineffectual, the b3-knight and g2-bishop being particularly misplaced and passive.

After the initial sacrifice matters seem fairly clear – but Witek, after correctly giving 1...♘xb2 2.♔xb2, then goes horribly wrong with 2...♘d3†??, turning a winning position into a losing one.

Eyetracker Puzzle 2



Black to play

Show/Hide Solution

Answers

Witek Koreywo (Elo 1601)
1...g4
Evaluation: Black is winning

Gabriel Wolf (Elo 1911)
1...g4 2.♖d1 ♗g5†
Evaluation: –3.0
Matthew George (Elo 2009)
1...g4 2.♘d1 g3 3.♘e3 ♖e2
Evaluation: Black is completely winning

Louise Head (Elo 2090)
1...g4 2.♖d1 ♗g5†
Evaluation: –2.0

Akshaya Kalaiyalahan (Elo 2149)
1...g4 2.♘d5 ♗g5† 3.♔b1 cxd5 4.♗xd5 ♘b6 5.♖xb7† ♔c8 6.♖xa7
Evaluation: –1.0

Keith Arkell (Elo 2429)
1...g4 2.♘d1 (or 2.♖d1)
Evaluation: –2.5

Michael Adams (Elo 2701)
1...g4 2.♔d1 (intending ♘e2) 2...♖xb2 3.♗xg4 and Black is two pawns up.
Evaluation: –2.0

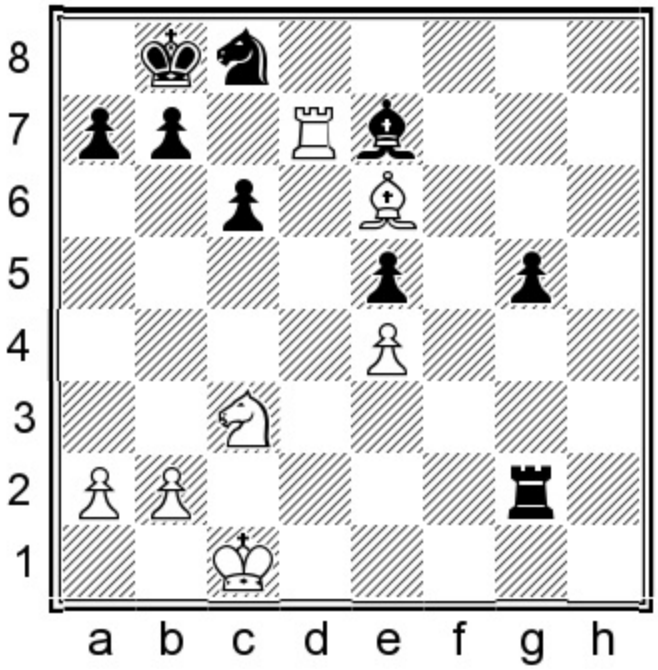
Stockfish
1...g4 2.♔d1! ♖xb2 3.♗xg4 (–3.0)

The natural 1...g4 is best. The most resilient sequence given by the computer is 2.♔d1 ♖xb2 3.♗xg4, as mentioned by Michael. Other moves like 2.♘d1 or 2.♖d1 are not quite as resourceful, and make Black's life easier after 2...g3. The retreat 2.♖d3 is also quite tenacious, but White will often end up in an inferior version of the 2.♔d1 variation, so the king move is a slightly tougher defence.

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2018



The natural idea of advancing the g-pawn is clearly the best idea, with Black's minor pieces doing a good job defensively, but a bit tied up. This move, as well as moving the passer one square nearer to queening, also opens up new horizons for the bishop on the kingside.

1...g4

But not 1...♗c5?? 2.♖d8.

If 1...♖f2 White's only active idea 2.♘d5! is possible: 2...♗c5 (2...cxd5? 3.♗xd5∓) 3.♖d8 ♖f8 4.♖xf8 ♗xf8 5.♘f6 White has a bit more hope of saving the game, as the g4-square is firmly controlled.

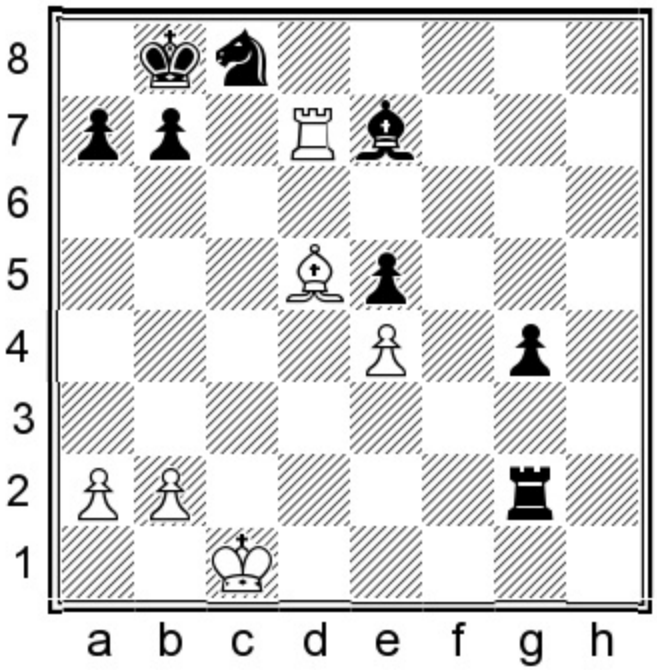
2.♔d1!

Scramble defence is required to stop the g-pawn and put up any resistance. White's king must move towards the pawn, as after 2.♔b1 g3 3.♖d3 ♗h4! the g-pawn will cost a piece.

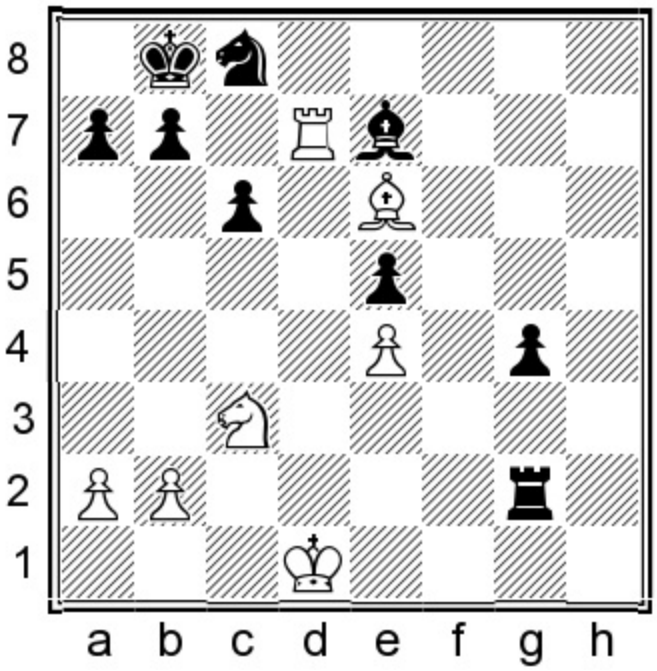
2.♘d1 g3 3.♖d3 ♗g5† 4.♔b1 ♘b6 is hopeless for White.
2.♖d1 g3 also fails to deal urgently enough with the swiftly advancing pawn.

2.♖d3 retreats the active rook, and White's king will need to go to d1 to stop the pawn anyway.
2...♗g5† (2...g3 can be met by 3.♔d1) 3.♔d1 (3.♔b1 ♘b6–+) 3...♖xb2 4.♗xg4 ♘b6 With two extra pawns and more active pieces.

Finally, White's only attacking idea is to sacrifice the knight with 2.♘d5 cxd5 3.♗xd5, hoping to take on b7 or grab the bishop if Black defends with ...♘d6.



However, Black's last move totally negates this idea, as 3...♗g5† is a handy intermezzo, leading to an easy win after: 4.♔b1 (or 4.♔d1 ♘b6 5.♖xb7† ♔c8–+) 4...♘b6 Black can also win by checking on g1 and c1 before dropping the rook back to c7. 5.♖xb7† ♔c8–+



2...♖xb2

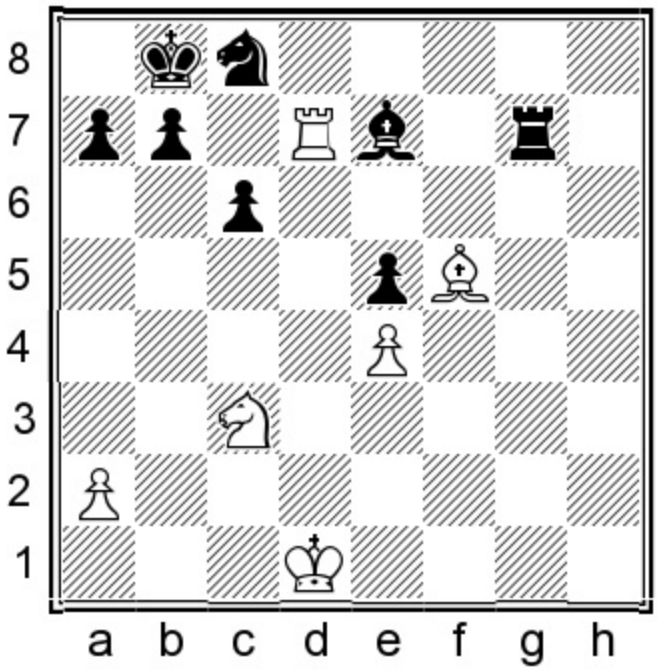
2...g3?! 3.♘e2! leaves the rook a bit awkwardly placed on g2, tied to the defence of the g-pawn. With Black's other pieces placed passively, things are starting to get tricky.

3.♗xg4 ♖g2!

The rook heads back to support the bishop.

4.♗f5 ♖g7!

Now Black has secured the bishop on e7 and is ready to expel the active rook with ...♘b6, gaining an advantage in piece activity in addition to the extra pawns. White's knight on c3 is hobbled by the pawn on c6, and the bishop on f5 hits fresh air.



5.♔c2

5.♘a4 can be met by: 5...b5! 6.♘c5 (6.♘b2 ♘b6–+) 6...♖g1† 7.♔c2 ♗xc5 8.♖d8 ♖g2† 9.♔b1 ♗d4 10.♖xc8† ♔b7–+

5...♘b6 6.♖d2 ♔c7–+

Black will gradually exploit the two extra pawns.

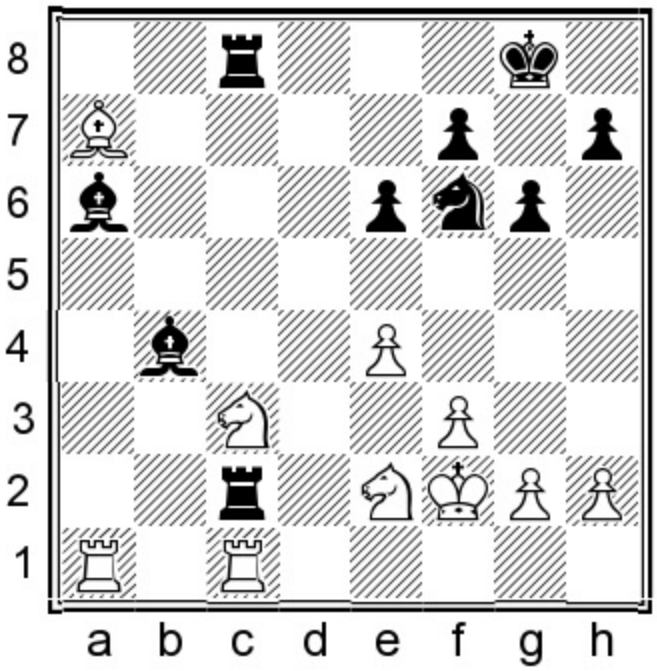
Puzzle Commentary by Phil

I chose this position because it felt mighty complicated to me. Two of White's pieces are entrenched in the black camp, and one senses there might be some tactical possibilities. After a while I realized that this is illusory, and proceeded to push the g-pawn. The difficult part is determining White's most tenacious reply. As it happens, only the Super-GM found it!

Adams Insight

Advancing the g-pawn one more square gives it real potential to promote in a hurry, if White doesn't react accurately. It also vacates the g5-square for Black's bishop, introducing a handy check and preventing ♖d2. After that move White has to understand that stopping the g-pawn trumps all other factors, and hence the awkward 2.♔d1 is the best of the unappetizing options to halt the passer and prolong the game.

Eyetracker Puzzle 3



Black to play

Show/Hide Solution

Answers

Witek Koreywo (Elo 1601)
1...♗xc3 2.♖xc2
Evaluation: +0.5

Gabriel Wolf (Elo 1911)
1...♖xc1 2.♖xc1 ♗c5† 3.♗xc5 ♖xc5
Evaluation: 0.0

Matthew George (Elo 2009)
1...♖xc1 2.♖xc1 ♘d7
Evaluation: –1.25

Louise Head (Elo 2090)
1...♖xc1 2.♖xc1
Evaluation: 0.0

Akshaya Kalaiyalahan (Elo 2149)
1...♗xc3 2.♖xa6 ♖xc1 3.♘xc1 ♖a8 4.♔e2
Evaluation: –0.3

Keith Arkell (Elo 2429)
1...♗xc3 2.♖xa6 ♖xc1 3.♘xc1 ♖a8
Evaluation: –1.0

Michael Adams (Elo 2701)
1...♗xc3 2.♖xa6 ♖xc1 3.♘xc1 ♖a8
Evaluation: –0.4

Stockfish
There are two good choices:

a) 1...♖xc1 2.♖xc1 ♘d7, keeping the bishop pair.

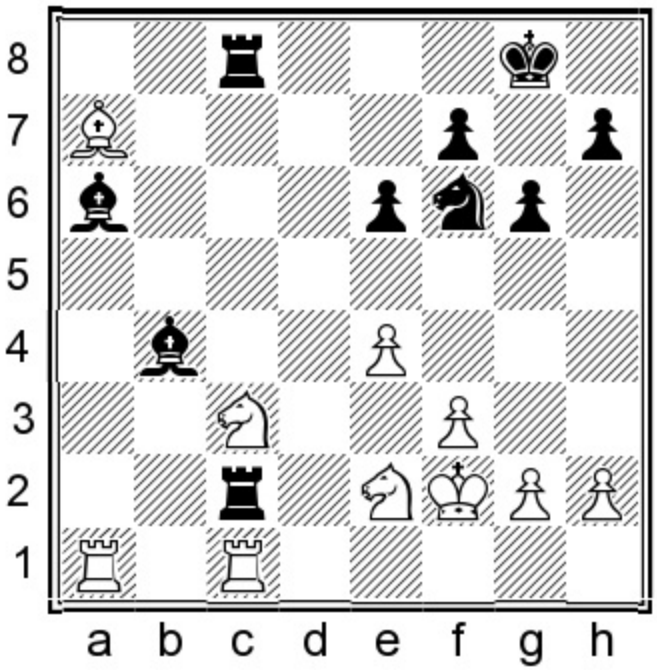
b) 1...♗xc3 2.♖xa6! The only move. 2...♖xc1 3.♘xc1 ♗e5 Targeting the pawn on h2.

The two possibilities are of very similar value (–0.3) according to the computer.

Deeper Analysis by Michael Adams

N.N. – Philip Hurtado

Internet (blitz) 2019



This was a tricky position to calculate. I instinctively felt there could be something dropping off, with so many captures possible, but in fact White's position is holding together. Black has a loose bishop on a6, and exchanges could peter out to sterile equality, so Black has to be precise to keep the embers of his advantage alight.

1...♗xc3

Keith (who has ground away more than a few endgames in his time) and I both found this option more appealing. Practically, it certainly asks White some tricky questions.

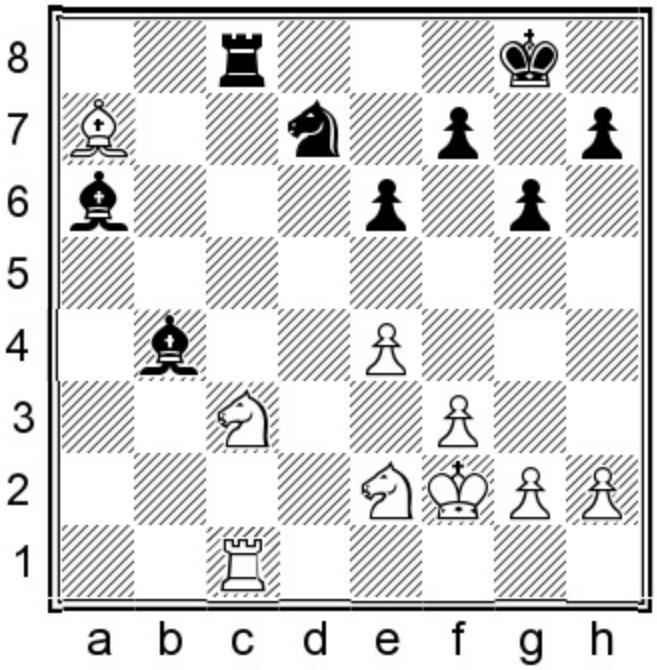
1...♖8xc3 2.♖xc2 ♖xc2 3.♖xa6 leads nowhere – the position is just equal.

1...♖xc1

This move didn't impress me too much, but the computer is quite attracted to keeping the bishop pair.

2.♖xc1 ♘d7!

The only challenging follow-up, with ideas of ...♘c5 or ...♘e5.



3.♘a2

This was why I rejected this line: the rooks will disappear, leaving heavily reduced material – and with the remaining pawns on one side of the board, the advantage seems symbolic.

3.♖a1?! ♘c5! is an important detail, White would prefer not to have to exchange the one remaining bishop.

3.♗d4 is playable. 3...♘c5 4.♖a1 and Black keeps a small edge.

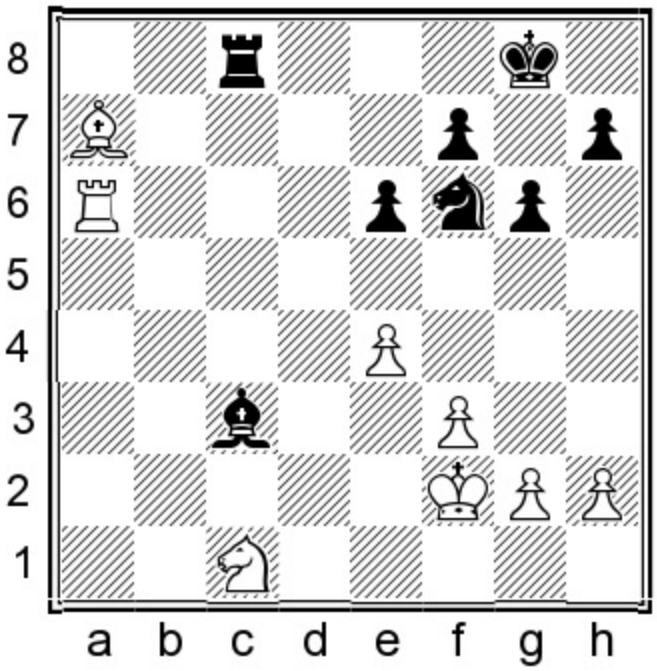
3...♖xc1 4.♘axc1

Even with all the pawns on one side of the board, the bishop pair shouldn't be underestimated, but a draw is the correct result.

2.♖xa6!

This is forced, as 2.♖xc2? ♗xa1 3.♖a2 ♗xe2 leaves Black a whole piece up.

2...♖xc1 3.♘xc1



3...♗e5!

An important move, with a double attack: hitting the knight and eyeing the pawn on h2.

4.♘d3

This seems like the most sensible defence. As White is going to lose a pawn anyway, he should do it on his terms, and this is the best way to regroup his pieces.

4.♗e3 ♗xh2 5.♗h6 is another option. The bishop is annoying on h6, and the extra pawn won't be useful for a long time.

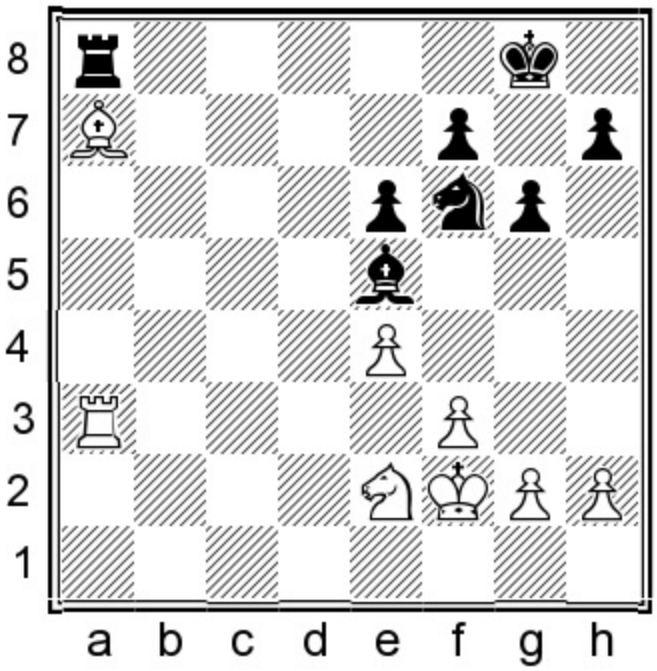
The other obvious candidate is:

4.♘e2 ♖a8!

Another handy move, exploiting the pinned bishop.

5.♖a3!

The only way to prevent the threat of ...♗b8.



5...♗d6!

5...♗b8?! 6.♗c5= allows White to escape.

6.♖d3

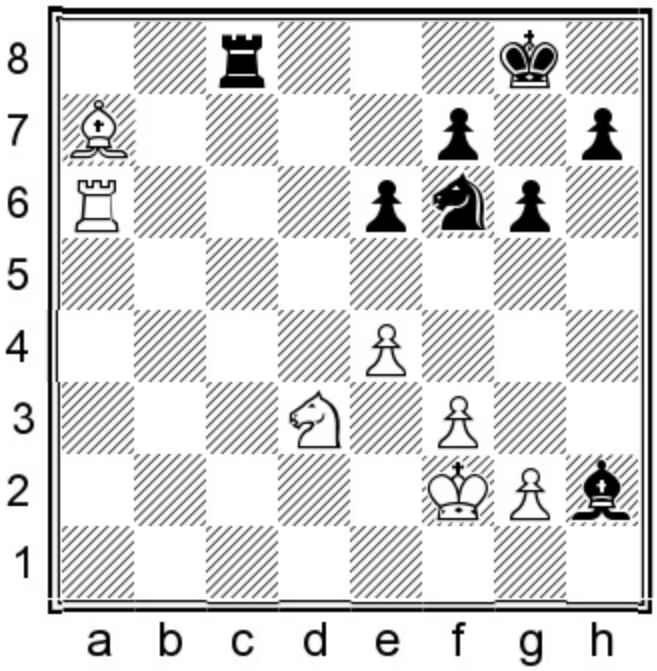
Again the only option.

6.♖a4? ♖xa7 7.♖xa7 ♗c5† and 6.♖a6? ♗b8 both win for Black.

6...♗xh2 7.♗d4 ♘h5

Black has grabbed a pawn although White should still be able to hold.

4...♗xh2



5.♗d4

The attempt to trap the bishop with 5.g3? only leads to further losses for White after 5...♖c2†.

5...♘h5 6.g4

Forcing further exchanges, which will bring White closer to a draw.

6...♘f4

6...♖d8 7.♗e5 ♗xe5 8.♘xe5 ♘f4 9.♖a7 ♘d3† 10.♘xd3 ♖xd3∓ should not be too difficult to hold.

7.♘xf4 ♗xf4 8.♗f6∓

The extra pawn won't be sufficient to win without some considerable help from White.

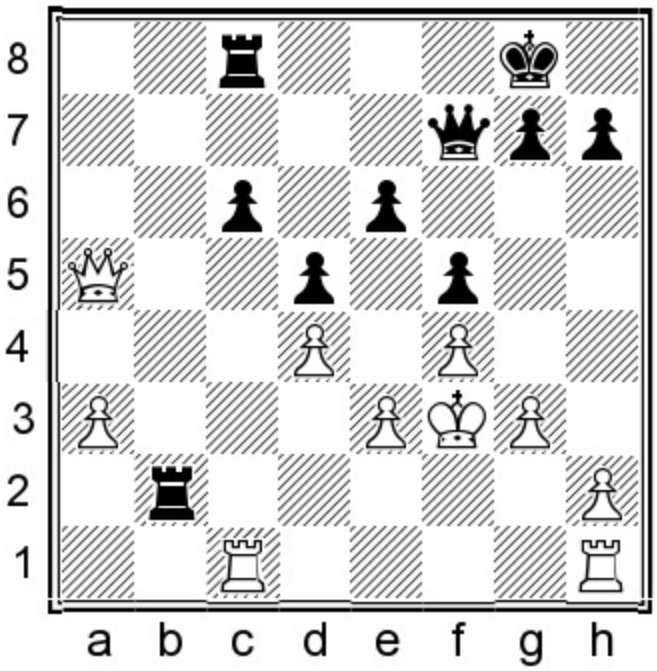
Puzzle Commentary by Phil

In this puzzle all eyes are on the knight on c3, which is being attacked from all sides. I was curious to know what the eyetracker heat maps would show after the players spent some time analysing the various captures.

Adams Insight

White's position feels very fragile here, but in fact the initiative is on the verge of evaporating quite quickly as exchanges take place. With all the pawns on the kingside, there will not be much potential to play for a win once the active rook on c2 is swapped. I think the main line is the best practical chance, making White find some accurate moves, and potentially being able to press with an extra pawn for a long time.

Eyetracker Puzzle 4



White to play

Show/Hide Solution

Answers

Witek Koreywo (Elo 1601)
1.h3 ♕h5† 2.g4 ♕h4 3.♖cf1
Evaluation: +0.2

Gabriel Wolf (Elo 1911)
1.h3 ♕b7 2.♖c5 ♖a8
Evaluation: –0.3

Matthew George (Elo 2009)
1.h3 ♕h5† 2.g4 ♕h4 3.♖cf1 g5
Evaluation: –3.0

Louise Head (Elo 2090)
1.h3 g5
Evaluation: –0.4

Akshaya Kalaiyalahan (Elo 2149)
1.h3 ♕h5† 2.g4 ♕h4 3.♕e1 ♕e7
Evaluation: +0.70

Keith Arkell (Elo 2429)

1.h3 g5
Evaluation: more than –2.5

Michael Adams (Elo 2701)
1.h3 ♕h5† 2.g4 fxg4† 3.hxg4 ♕g6! with the idea of ...♕e4†.
Evaluation: –3.0

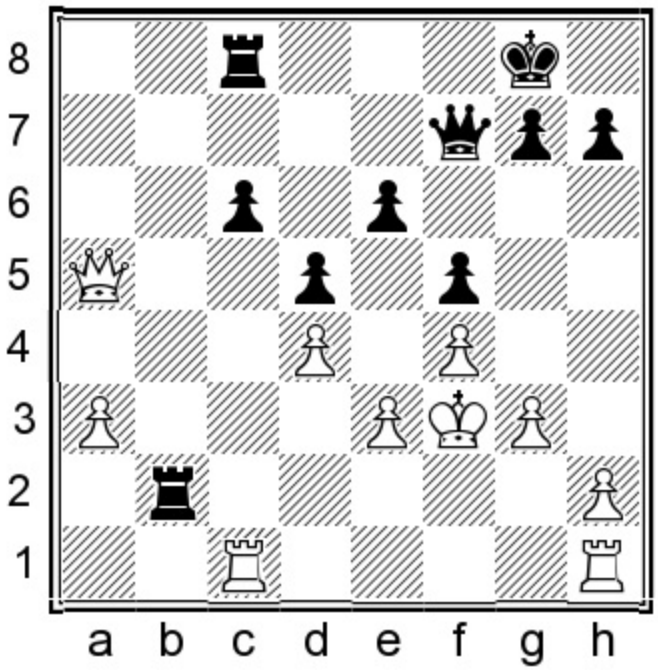
Stockfish
The most forcing line 1.h3 ♕h5† 2.g4 fxg4 3.hxg4 ♕g6! is simplest, and strongest. The engine now declares mate in 12!
The alternative idea 1.h3 g5!? (–5.0) is given by Keith as decisive, while Louise gave the same continuation but without realizing the extent of Black's superiority. Although this is a valid solution, the path to victory narrows after the resilient reply 2.♕c3, when Black can only maintain a winning position with 2...g4†, not allowing White time to consolidate.

The less plausible computer line 1.h3 ♖cb8, securing the rook on b2, also doesn't spoil the winning advantage.

Deeper Analysis by Michael Adams

Philip Hurtado – Ray Carpenter

Solihull 2019



White is leading with his chin here, and after a brief look at the position it is clear that the devastating threat of ...♕h5† is the only issue to focus on. White is in dire straits, even with best play.

The only thing to do is to find the only moves to stave off immediate mating threats, keeping the game going a while, which will make Black work to collect the full point cleanly.

1.h3!

This is necessary, as other moves won't delay the trip to the bar for long:

1.♖cg1 ♕h5† 2.g4 ♕h3† 3.♖g3 fxg4#

1.g4 fxg4† 2.♔g3 ♕h5 3.h3 gxh3 4.♖xh3 ♕g6† 5.♔h4 ♖g2–+

1...♕h5†

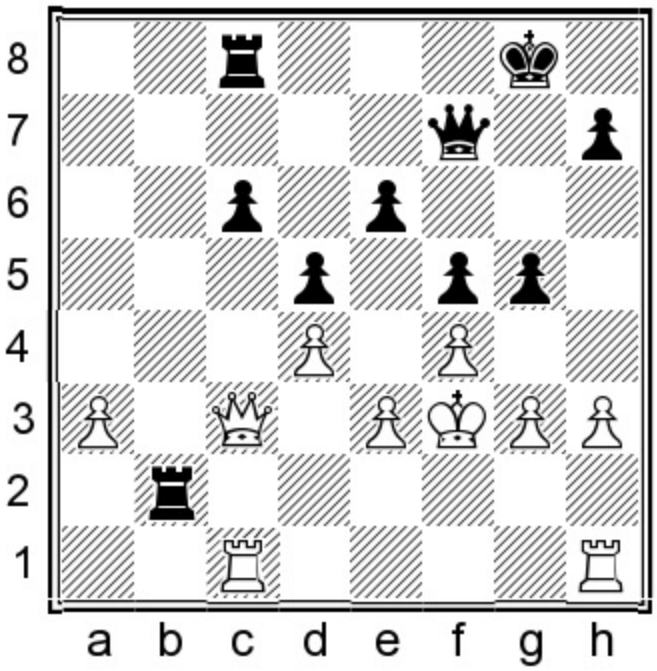
1...g5

This was favoured by Keith and Louise, aiming to open more lines on the kingside. This approach also has some points in its favour, but activating the queen seems the most efficient to me, and has the benefit of forcing matters.

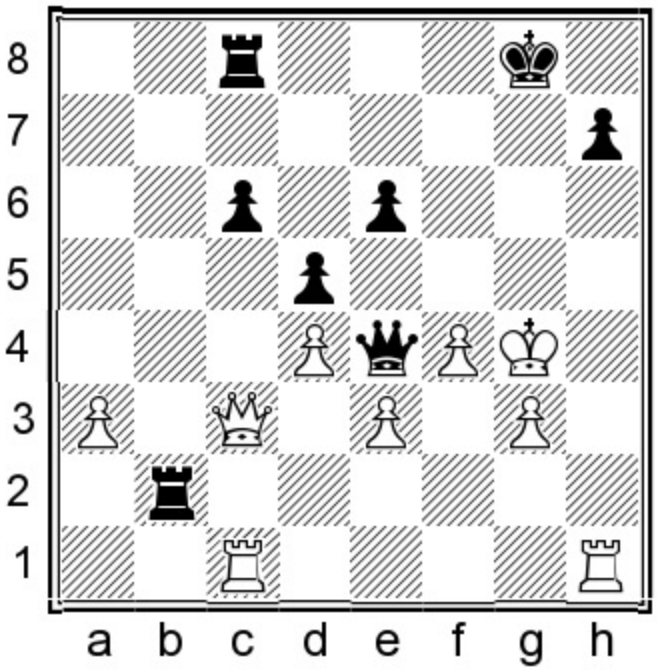
2.♕c3!

2.fxg5? ♕h5† 3.g4 ♕h4 is crushing, now the f-file is open.

The best try, hitting the rook and preparing to protect the second rank with ♖c2. Black has a narrow winning path now.



2...g4†! 3.hxg4 fxg4† 4.♔xg4 ♕g6† 5.♔f3 ♕e4† 6.♔g4



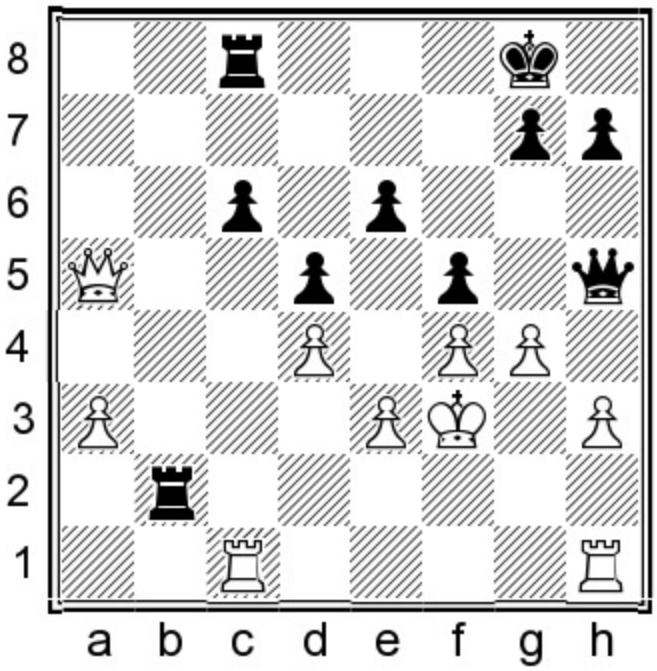
6...♖f2

One of several winning options, cutting off the king's access to f3.

7.♕e1 ♕f3† 8.♔h4 h5 9.♕d1 ♖e2

Black wins.

2.g4



2...fxg4†

2...♕h4? was a serious mistake played in the game, when 3.♕e1 clears White's lines.

2...♕g6!? is an alternative winning continuation, albeit not as fast as the main line.

3.hxg4 ♕g6!

An important switchback. The exchange of pawns has freed up a great spot for the black queen on e4.

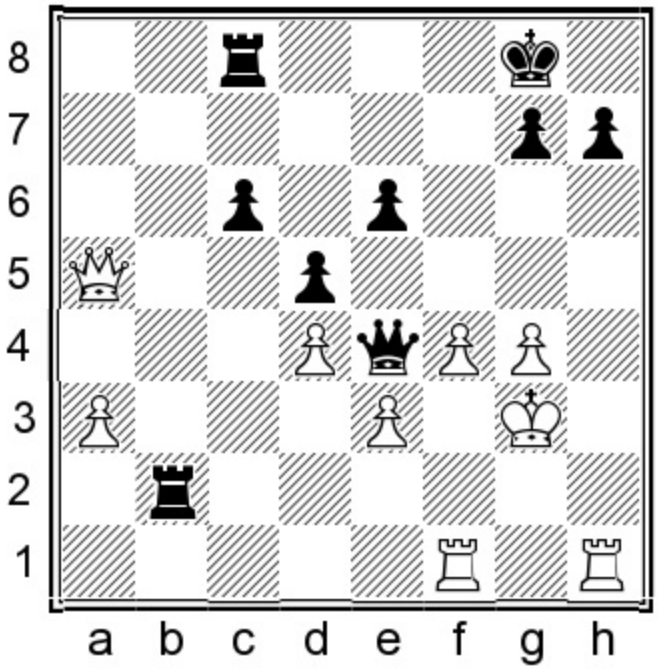
4.♔g3

4.♖xc6 allows a quick kill: 4...♕e4† 5.♔g3 ♕g2† 6.♔h4 ♕xh1† 7.♔g5 ♕h6#

4.♕c3 ♕e4† 5.♔g3 ♖g2† 6.♔h4 ♕f3–+ is also hopeless for White.

4...♕e4 5.♖cf1

The best hope, requiring Black to show some accuracy for a clean kill.



5...g5!

This move is far from obvious. Black takes away the h4-square from the king and menaces ...♕g2 mate.

After 5...♕xe3† 6.♖f3 Black is still winning, but hopes of a miracle escape haven't been completely extinguished. 6...♕e2 (6...♕xd4–+) 7.♕e1 ♕g2† 8.♔h4 ♖e2 9.♕f1 White swaps queens and prolongs the game.

5...♖e2! is a human continuation which wins, albeit more slowly than the main line.

5...h5! is rather pretty, but hardly a line for a human: 6.gxh5 ♕g2† 7.♔h4 g5† 8.hxg6 (8.fxg5 ♕e4† 9.♔h3 ♕xe3† 10.♔h4 ♕e4† 11.♔h3 ♖b3† 12.♔h2 ♕h4†–+) 8...♔g7 9.♕a7† ♔xg6 Followed by ...♖h8†.

6.♖f3

6.fxg5 ♖g2† 7.♔h4 ♕xg4#

6.♖f2 ♕xe3† 7.♖f3 gxf4† wins.

6...♕c2 7.fxg5 ♕g2†

Black picks up a rook for starters.

Puzzle Commentary by Phil

This position is from a game I played against another of the puzzle solvers: Ray Carpenter. I felt I was totally lost, but couldn't see the win for Ray so I struggled on with 27.h3. The game followed 27...♕h5† 28.g4, and now Ray left me off the hook playing 28...♕h4? 29.♕e1 ♕e7 30.♖c3 ♖a2 31.♕b1. As often happens in chess when you let your opponent escape, Ray ended up losing the game.

Because both Ray and I failed to see the wining blow at the critical moment, I thought this would be a good test of how many forcing moves players would see.

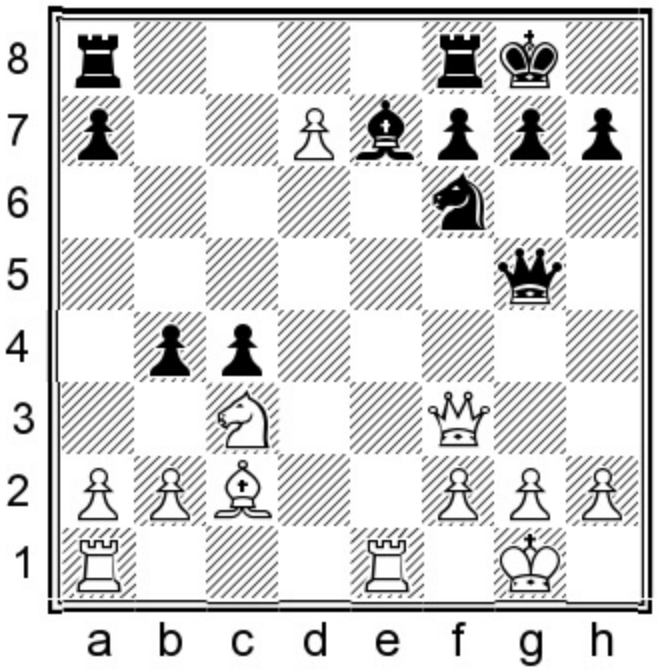
Adams Insight

In this position White just has to hold on for as long as possible, and hope an inaccuracy gives some respite. The cleanest wins aren't that easy to find for Black, so it's definitely worth trying to maximize resistance.

After the forced 1.h3, a few players suggested the reasonable 1...g5. This has some points in its favour as opening lines on the kingside is desirable, but activating the queen seems the most efficient to me, and has the benefit of forcing matters.

A number of players slipped up by recommending 1.h3 ♕h5† 2.g4 ♕h4?, instead of the powerful 2...fxg4† 3.hxg4 ♕g6. A good example of how the one-move threat of mate is too tempting, even though it is clear that it aids White: after the natural response 3.♕e1, which occurred in the stem game, White will repel the queen and is wriggling out of trouble.

Eyetracker Puzzle 5



White to play

Show/Hide Solution

Answers

Witek Koreywo (Elo 1601)
1.♘e4 ♘xe4 2.♖xe4
Evaluation: +0.5

Gabriel Wolf (Elo 1911)
1.♘e4 ♕h6 2.♘xf6† ♕xf6 3.♕e4 g6 4.♕xe7 ♕xe7 5.♖xe7
Evaluation: +5.0

Matthew George (Elo 2009)
1.♘e4 ♕b5 2.♖ad1
Evaluation: +5.0

Louise Head (Elo 2090)
1.♖xe7 bxc3 2.bxc3 ♘d5 3.♖e4
Evaluation: +1.5

Akshaya Kalaiyalahan (Elo 2149)
1.♖xe7 bxc3 2.bxc3
Evaluation: +0.4

Keith Arkell (Elo 2429)

1.♖xe7 bxc3 2.bxc3
Evaluation: more than +2.0

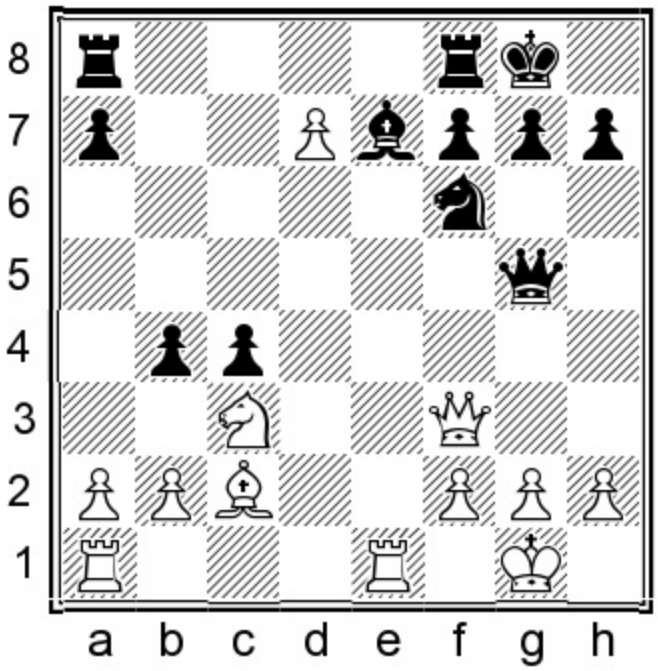
Michael Adams (Elo 2701)
1.♖xe7 bxc3 2.bxc3
Evaluation: +2.0

Stockfish
There are a surprising number of strong yet counterintuitive options here: 1.h4, 1.♖ad1 and 1.♘a4 are all winning, with assessments of over +3. The obvious 1.♖xe7 is the computer's favourite, with assessments approaching +5.
The tempting tactical idea 1.♘e4, which was the reason the puzzle was selected, also works (+4.0), although the resilient reply 1...♕b5! keeps Black hanging on by their fingertips, when matters are not so straightforward.

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2019



White has a lot of promising options but, after calculating them, it becomes clear that the simplest and most straightforward one is best.

1.♖xe7!

The calm capture on e7 is the strongest and most practical option, avoiding the risk of calculation error and leaving White a monstrous pawn up.

A highly tempting alternative is:

1.♘e4!?

I found this quite a tricky position, as this tactical shot initially looks like the right idea. However, Black has a single accurate response to avoid immediate defeat.

1...♕b5!

Alternatives are hopeless:

1...♘xe4? 2.♕xe4 g6 3.♕xe7+–

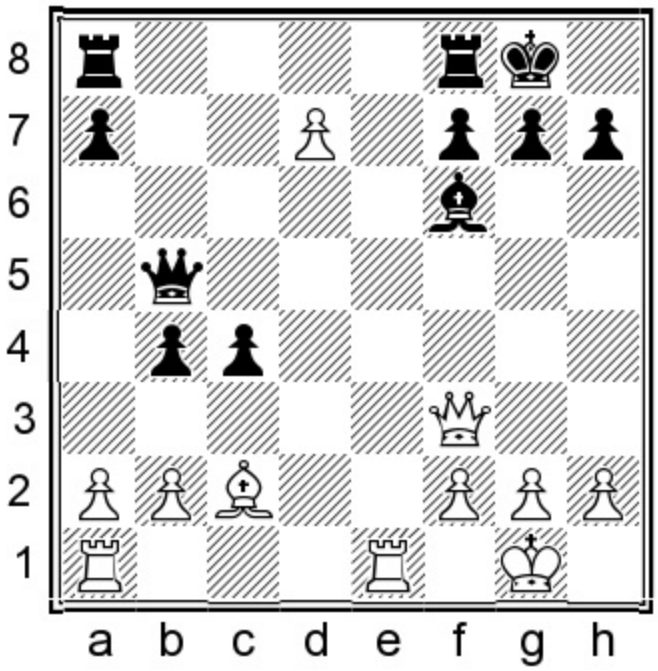
1...♕h6? 2.♘xf6† ♕xf6 (2...♗xf6 3.♕xa8 ♖xa8 4.♖e8†+–) 3.♕e4+–

1...♕a5? 2.♘xf6† ♗xf6 3.♕xa8 ♖xa8 4.♖e8†+–

2.♘xf6†

2.♕d1 and 2.♖ad1 are also strong, but the text move seems most natural.

2...♗xf6



3.♖ad1!

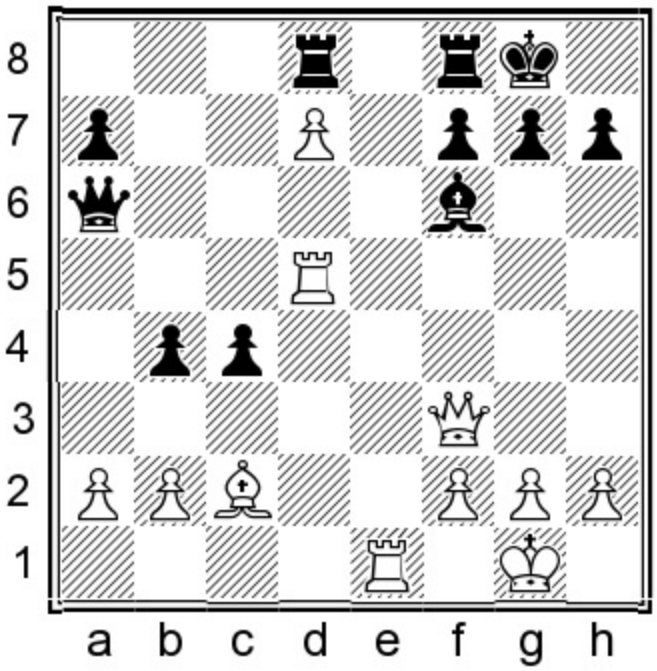
I underestimated how bad Black's position is after this quiet move. Black's real problem is that he would like to play the useful move g6, to make luft and blunt the white bishop, but this leaves Black's own bishop loose.

3...♖ad8

3...♗xb2? 4.♕xa8 ♖xa8 5.d8=♕† wins.

4.♖d5 ♕a6!

4...♕c6? 5.♗xh7† and 4...♕b6 5.♕e4 g6 6.♕xc4 leave Black with little hope.

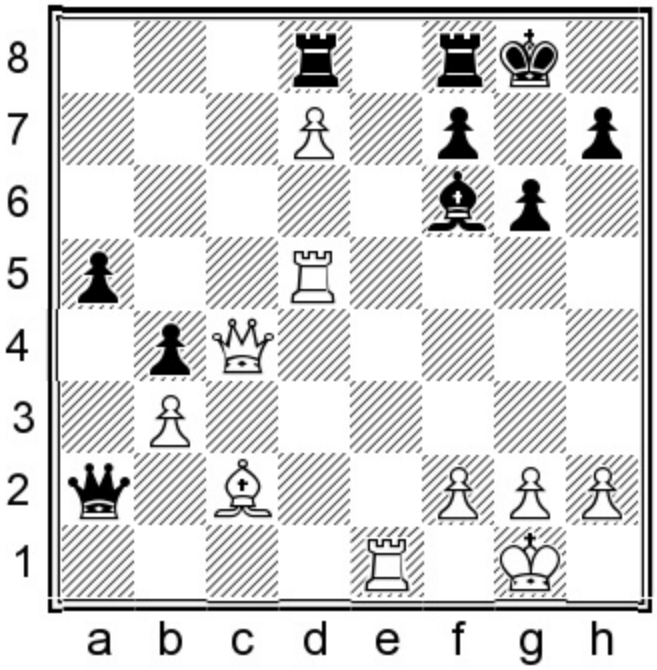


5.b3 ♕xa2

After 5...c3 the protected passed pawn looks impressive but it isn't going anywhere: 6.♗d3 ♕b6 (6...♕xa2 7.♕f5+–; 6...♕c6? 7.♗xh7† ♔xh7 8.♖h5†) 7.♕f4 Black is desperately short of moves.

6.♕e4 g6 7.♕xc4 a5

The mighty passed pawn on d7 should eventually decide matters. A good way to do it is:



8.♖ed1! a4 9.♖5d2

Black's queen is in trouble.

9...♗c3

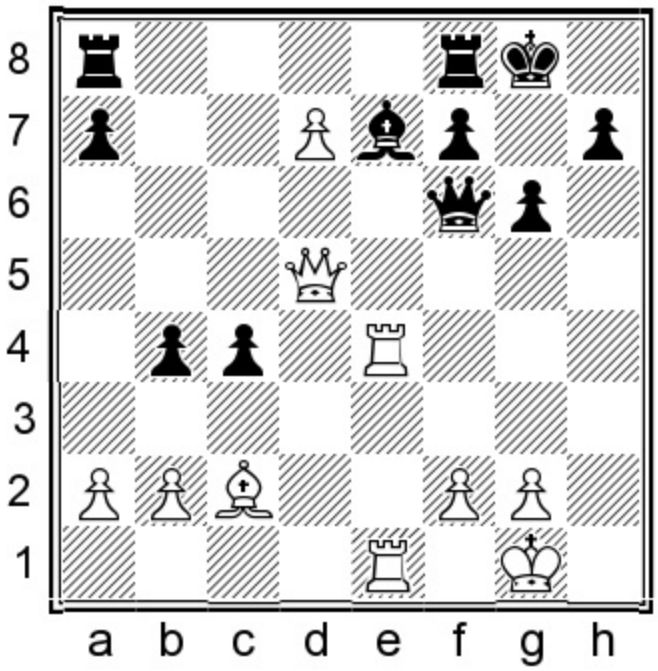
9...axb3 10.♗xg6+–

10.♖e2

White wins.

It seems odd not to save the knight or take the bishop immediately, but 1.♖ad1!? also wins: 1...bxc3 2.♖xe7 See 2.♖ad1!? in the notes to the main line below.

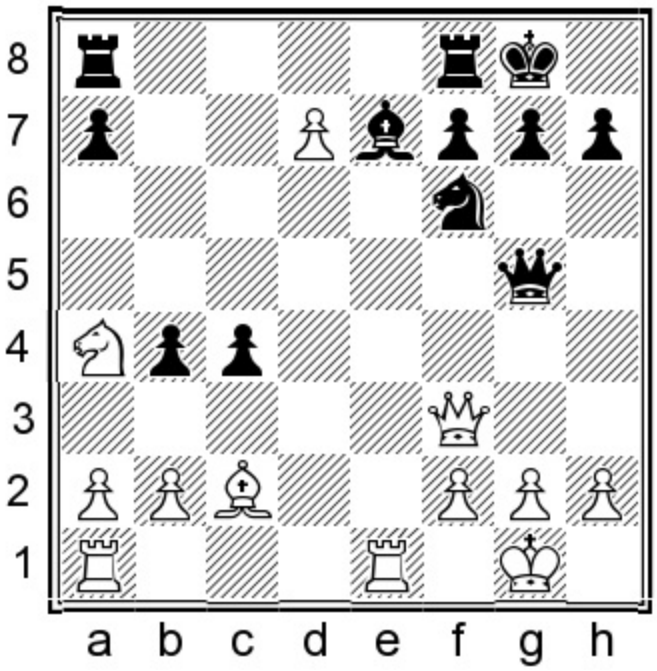
1.h4!? is also winning, although such complexity is not really required. 1...♕xh4 (1...♕d2 2.♖xe7 ♕xc2 3.♘d5 ♘xd5 4.♕xd5 ♖ad8 5.♖ae1 ♕xb2 6.♖xf7 breaks through) 2.♘d5 ♘xd5 3.♕xd5 g6 4.♖e4 ♕f6 5.♖ae1 Black has no good options. For instance:



5...♕xb2 6.♖xe7 ♕xc2 7.♖e8+–

1.♘a4!?

With other tempting ideas available, moving the knight to the edge of the board doesn't seem that appealing. However, it is actually quite sensible to move the attacked knight and leave the bishop on e7 in trouble.



1...b3!?

1...♘xd7 2.♕e4+– wins the bishop.

1...♗c5 2.♖ad1 ♖ad8 3.h4!+– also wins the bishop.

1...♗d6 2.♖ad1 ♕f4 3.♕xf4 ♗xf4 4.♖d4 ♗h6 5.♘c5+– and the d-pawn decides.

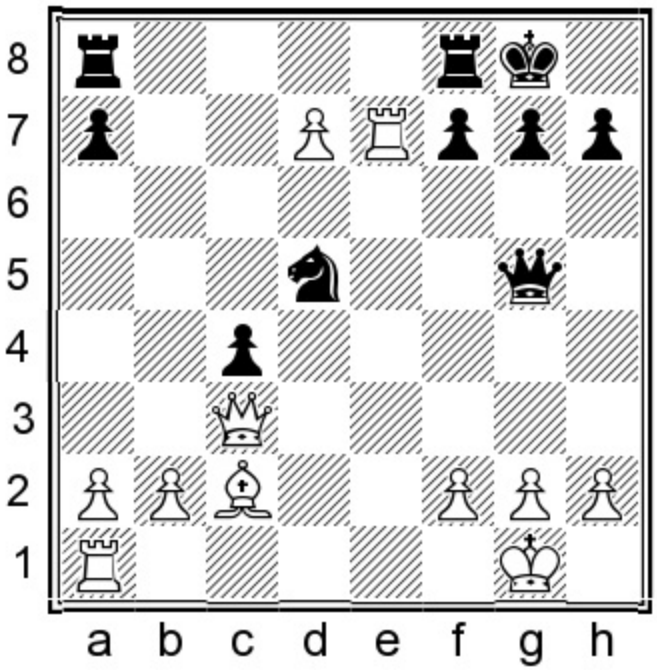
2.axb3 ♗b4 3.♖ed1 ♖ad8 4.♗f5 cxb3 5.♗h3

Black can't successfully attack the pawn on d7, so White is winning.

1...bxc3 2.bxc3

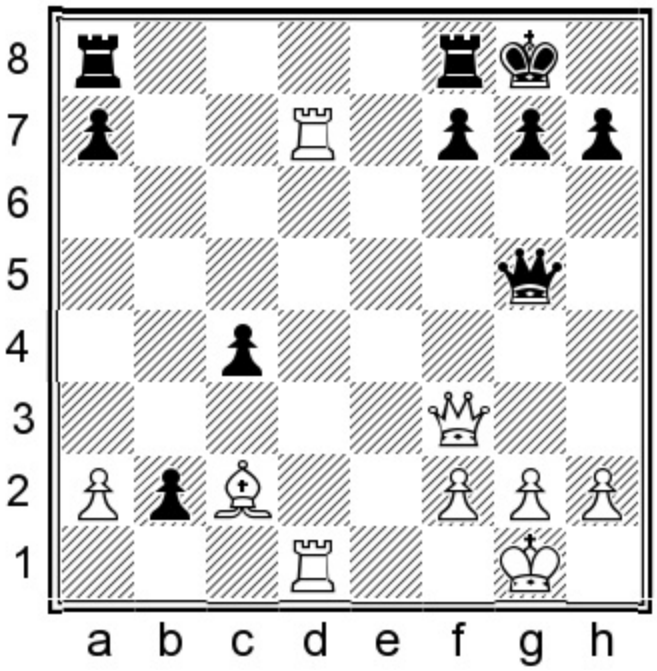
Although the d-pawn won't promote in a hurry, Black's pieces are severely tied down and he remains a pawn behind.

2.♕xc3 is also viable as the fork can be countered: 2...♘d5 (Or 2...♕b5 3.♖d1 ♖ad8 4.♕d4+– and Black is hopelessly tied up.)

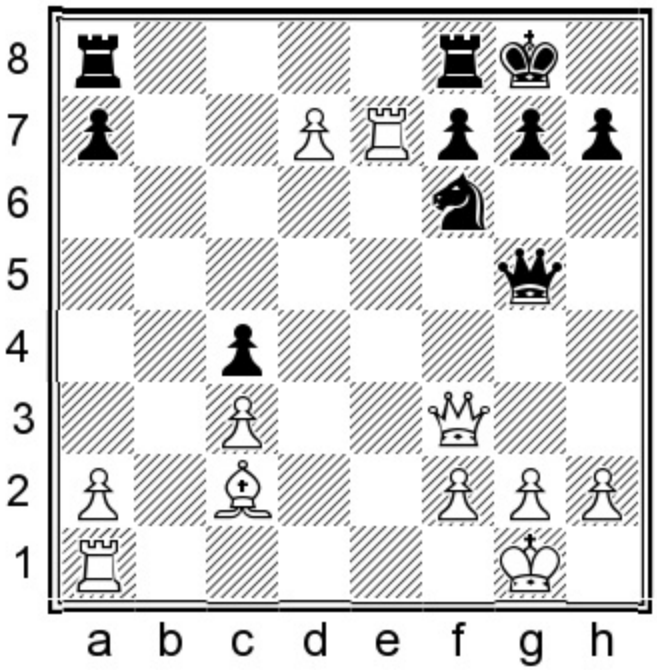


3.♖e5! ♘xc3 4.♖xg5 ♘e2† 5.♔f1 ♘d4 6.♗a4 The d-pawn is secure.

The surprising 2.♖ad1!? also works fine: 2...♘xd7 (2...cxb2 3.♕xa8! ♖xa8 4.d8=♕† is by now a familiar trick) 3.♖exd7 cxb2



4.♕c3 ♖ab8 5.♖b1 The b2-pawn isn't dangerous. 5...♕c1† (5...g6 6.g3+–) 6.♖d1+–



2...♖ad8

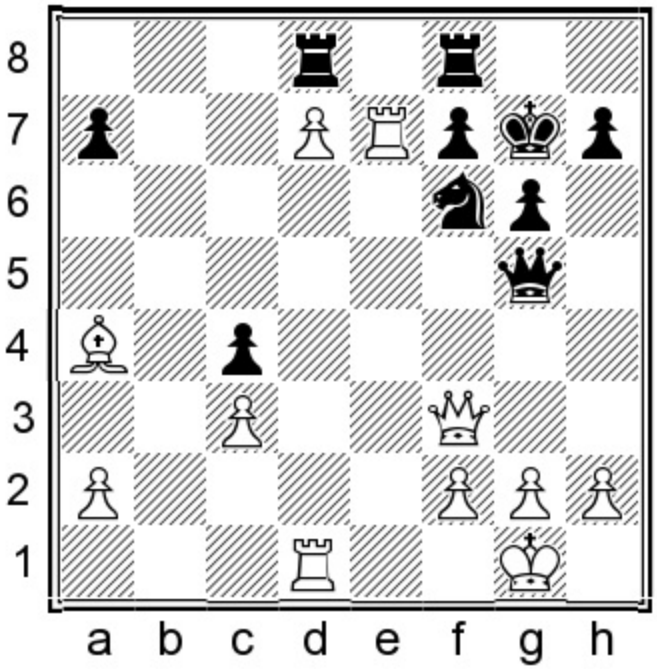
2...♕d2 3.♗f5 g6 4.♖d1 ♕g5 5.♗e6 fxe6 6.♕xa8 ♖xa8 7.d8=♕† is another possible winning line.

3.♖d1 g6 4.♗a4

A bit of overprotection emphasizes how hopeless things are.

4...♔g7

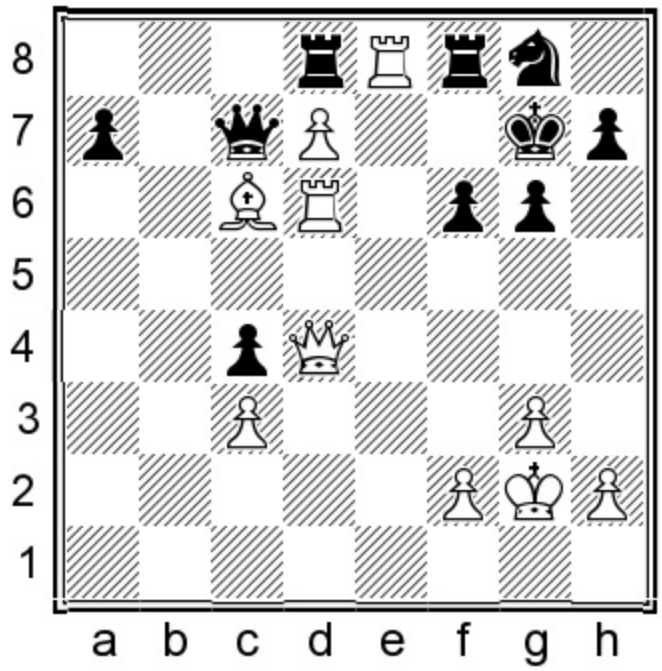
4...♘d5 5.♖e4 ♘b6 6.♗c6 is also winning.



5.g3 ♕a5 6.♗c6 ♕xa2 7.♖d6 ♘g8 8.♖e8

White methodically increases the pressure. A logical continuation is:

8...♕b1† 9.♔g2 ♕b8 10.♕d5 ♕c7 11.♕d4† f6



12.♖de6 a5 13.♕c5 ♖f7 14.♖xd8 ♕xd8 15.♖e8

White wins.

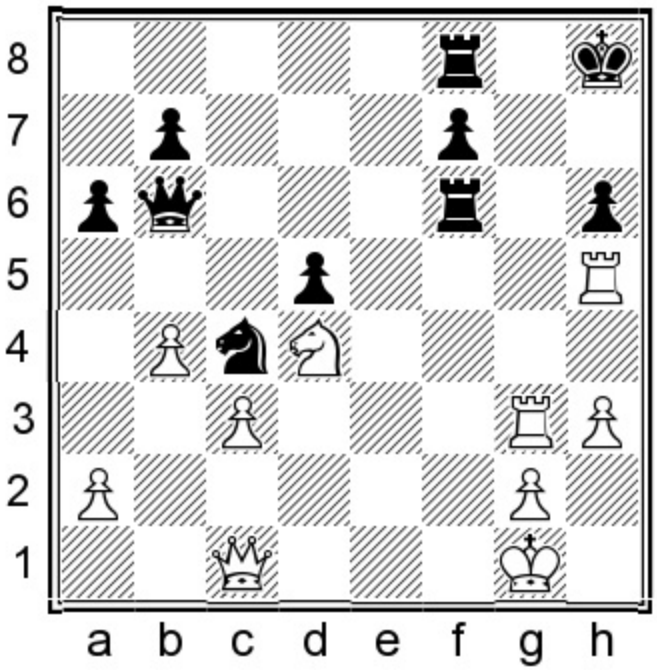
Puzzle Commentary by Phil

I was considering two candidate moves here: 1.♖xe7, which I thought led to equality after 1...bxc3 2.bxc3 ♘d5;
and 1.♘e4, with the tactical idea of 1...♘xe4 2.♕xe4 with a double attack on the bishop and mating threat on h7. I thought this sharp position with a lot of action taking place might prove interesting, and was curious as to how many players would go for 1.♘e4, as I did in the game.

Adams Insight

White has an embarrassment of riches here, but for most players the puzzle will come down to a choice between 1.♖xe7 and the enticing 1.♘e4, although the d7-pawn is so strong that a few unlikely alternatives are also plenty good enough. The simplest option of capturing the bishop is a sound decision – there is definitely something to be said for not overcomplicating when you are winning. It's important to realize that the tempting 1.♘e4 doesn't win directly, as the resourceful 1...♕b5 still leaves White with work to do.

Eyetracker Puzzle 6



White to play

Show/Hide Solution

Answers

Witek Koreywo (Elo 1601)
1.♔h1 ♘e5
Evaluation: +1.0

Gabriel Wolf (Elo 1911)
1.♕g5 ♖g6 2.♖xh6† ♔g7
Evaluation: +6.0

Matthew George (Elo 2009)
1.♕g5 ♖g6 2.♖xh6† ♔g7
Evaluation: +5.0

Louise Head (Elo 2090)
1.♕g5 ♖g6 2.♖xh6† ♔g7
Evaluation: +1.5

Akshaya Kalaiyalahan (Elo 2149)
1.♕g5 ♖g6 2.♖xh6† ♔g7 3.♖xg6†
Evaluation: +2.0

Keith Arkell (Elo 2429)
1.♕g5 ♖g6 2.♖xh6† ♔g7
Evaluation: +2.5

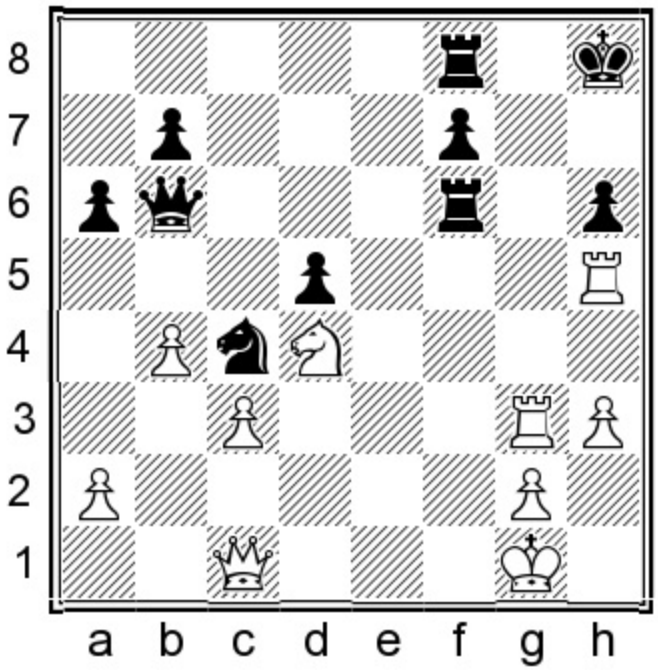
Michael Adams (Elo 2701)
1.♕g5 ♖g6 2.♖xh6† ♔g7 3.♕h4!
Evaluation: +6.0

Stockfish
1.♕g5! ♖g6 2.♖xh6† ♔g7 is best, and now 3.♕h4! is the deadliest of many winning moves (+10.0).

Deeper Analysis by Michael Adams

Philip Hurtado – N.N.

Internet (blitz) 2018



White has a big positional advantage, and even quieter continuations are incredibly strong, but there is one way to finish the game quickly.

1.♕g5!

Taking the immediate opportunity to strike and finish the game in style. The pin on the h-pawn enables White to decisively bring the queen into the attack. Other less forcing options are much less impressive.

1...♖g6 2.♖xh6†

As the rook can't be captured, this is curtains.

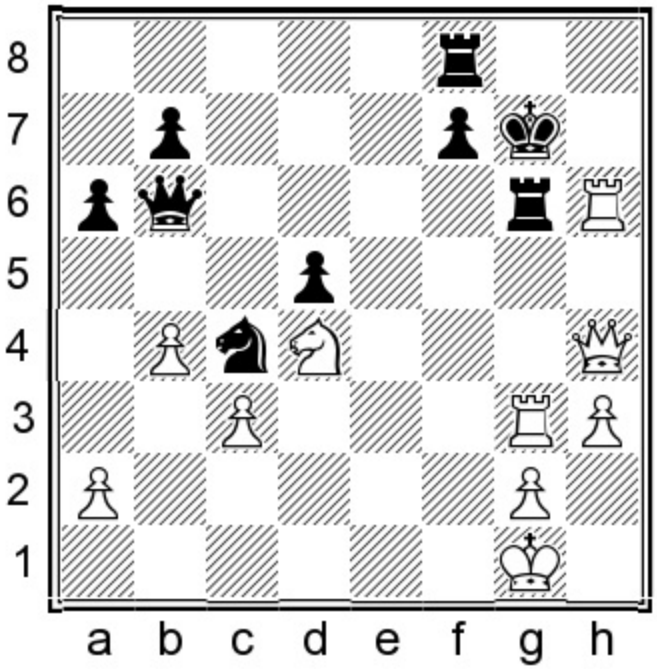
2...♔g7

2...♖xh6 3.♕g7 is mate.

2...♔g8 is pointless: White can either play 3.♕h4, with similar play to the main line below, or opt for 3.♖xg6† fxg6 4.♕xd5†+– to exploit the placement of the black king.

3.♕h4!

Not the only winning move, but it is pleasing and efficient to exploit the fact that the black rook is pinned in both directions.



3...♘e5

3...♖xg3 4.♖xb6+–

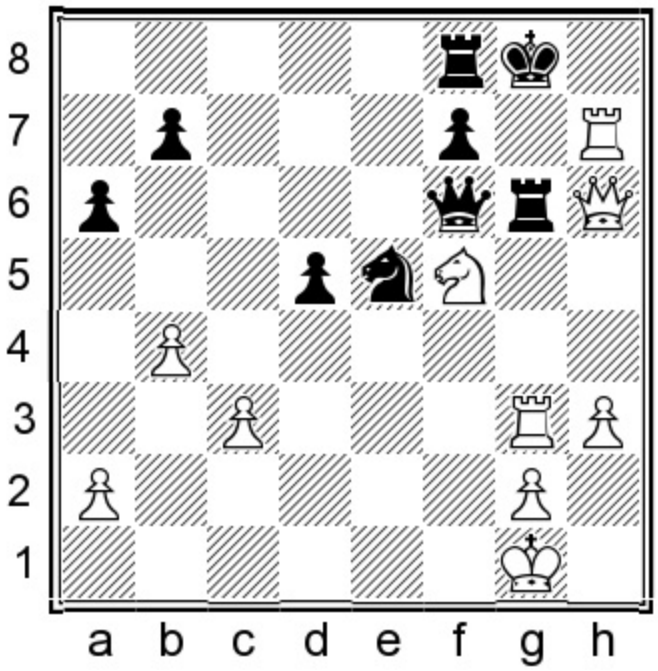
3...♖g8 4.♖gxg6† fxg6 5.♖h7† ♔f8 6.♕e7#

4.♖h7†

4.♔h1!? is a rather sadistic move, threatening ♘f5†, but there is no reason not to force matters.

4...♔g8 5.♕h6 ♕f6 6.♘f5

Bringing the last piece into the attack, with mate to follow shortly. For instance:



6...♖e8

6...♕xf5 7.♖h8#

7.♖xg6† ♘xg6 8.♖g7†

With mate to follow.

Puzzle Commentary by Phil

I missed the best move during my blitz game, and overlooked it in the post mortem as well. The reason is that the winning move involves moving the queen to an optically forbidden square. This reminds me of my mistake in Puzzle 27, where the rook can move to a square where it appears to be unable to go to, and which I also missed.

Adams Insight

White's pinned knight can't move in the starting position, so the piece that has the most potential to improve is the queen, which is itching to get into the attack. The pinned h-pawn offers the means for White to do this, directly and decisively. With all White's pieces gathered on the fractured kingside, once the tactic 1...♖g6 2.♖xh6† is seen, everything is clear.

***

Let's move on to looking at the eyetracker data by studying the heat maps generated while Michael was solving the puzzles, with his explanatory comments.

Chapter 5.6

Michael's Analysis of his Heat Maps

Firstly, here is the information you need to interpret the colours displayed on the boards below:

* The areas marked in red are those which my eyes focused on for the longest period.

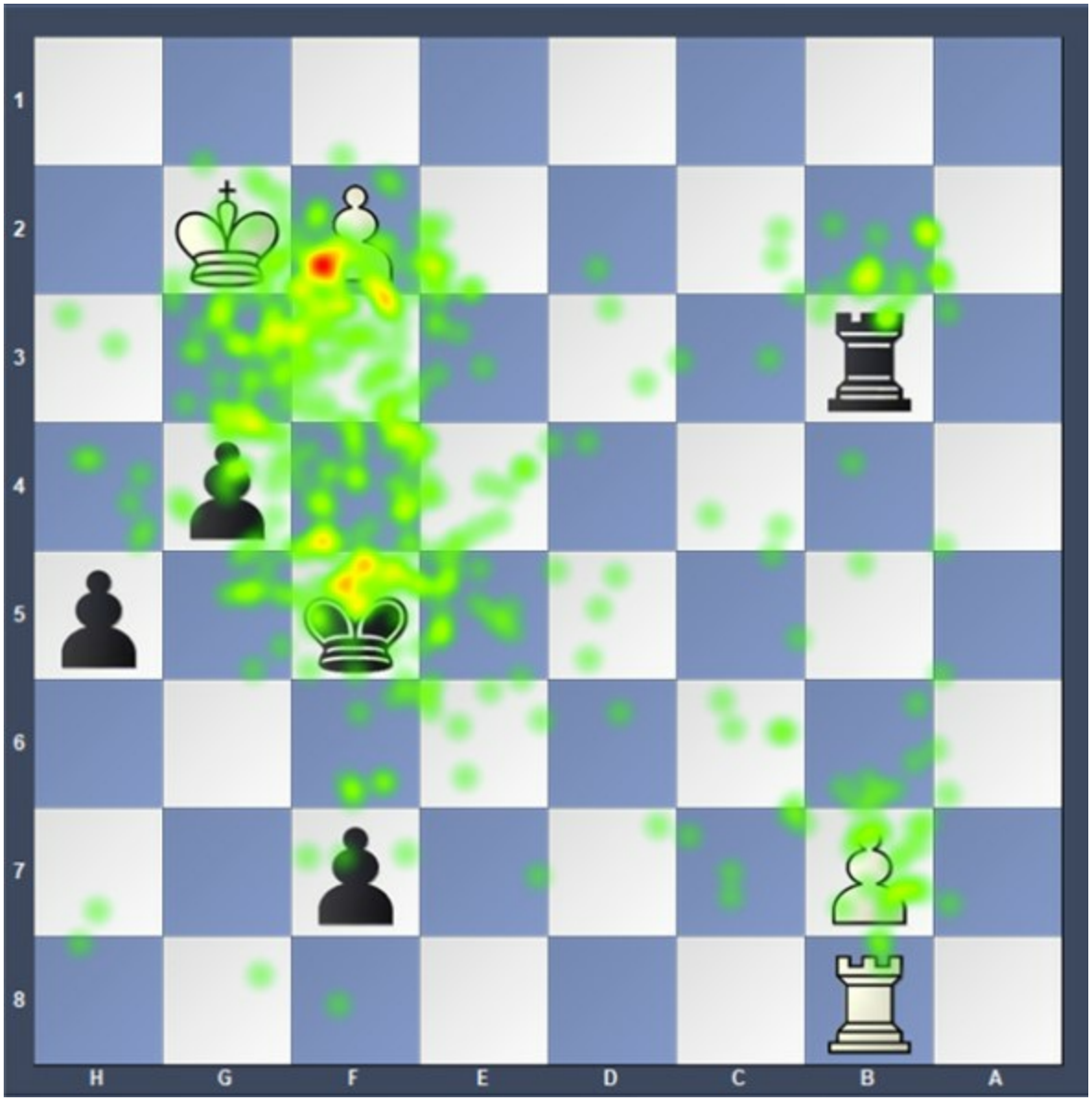
* The areas coloured in green indicate other squares where my eyes also settled significantly. The more shading there is, the larger the amount of time that I spent looking at that square.

You can inspect the diagrams yourself and draw your own conclusions, but I have attempted to give a more detailed breakdown of my own interpretation of my data. I added the chess variations to the heat maps in this chapter not long after the experiment, when the positions were still very fresh in my mind. I think I resurrected my thinking process quite successfully. Much later on I returned to take a fresh look at the data, and added some further comments linking the shaded squares with my own thoughts and relevant variations in more detail.

It is worth noting that the squares which are most highlighted nearly always seem to refer to a square where a piece is going to. The amount of time looking at a piece you are thinking of moving doesn't normally seem that high, although there are a couple of exceptions, sometimes involving knights. There are often a few rogue dots that don't correlate to plausible moves or thoughts, although in some cases these are squares adjacent to ones you have been looking at.

In my comments, I have first given the most relevant variations I was calculating, and then linked my thoughts up with the squares indicated by the heat maps.

Warm Up Puzzle



I saw that White is planning ♖h8, to indirectly swap pawns and reach a drawn endgame. Hence 1...h4 is the best move, to hang on to the loose kingside pawn.

The variation 1...h4 2.♖h8 h3† is a key point, when the intermediate check saves the h-pawn, and 3.♔h2 ♖xb7 keeps the kingside pawns intact.

I also considered the alternative 2.♔h2 h3 3.f3 ♖b2† followed by either 4.♔g1 g3, or 4.♔g3 ♖g2† 5.♔h4 h2, planning to promote with mate.

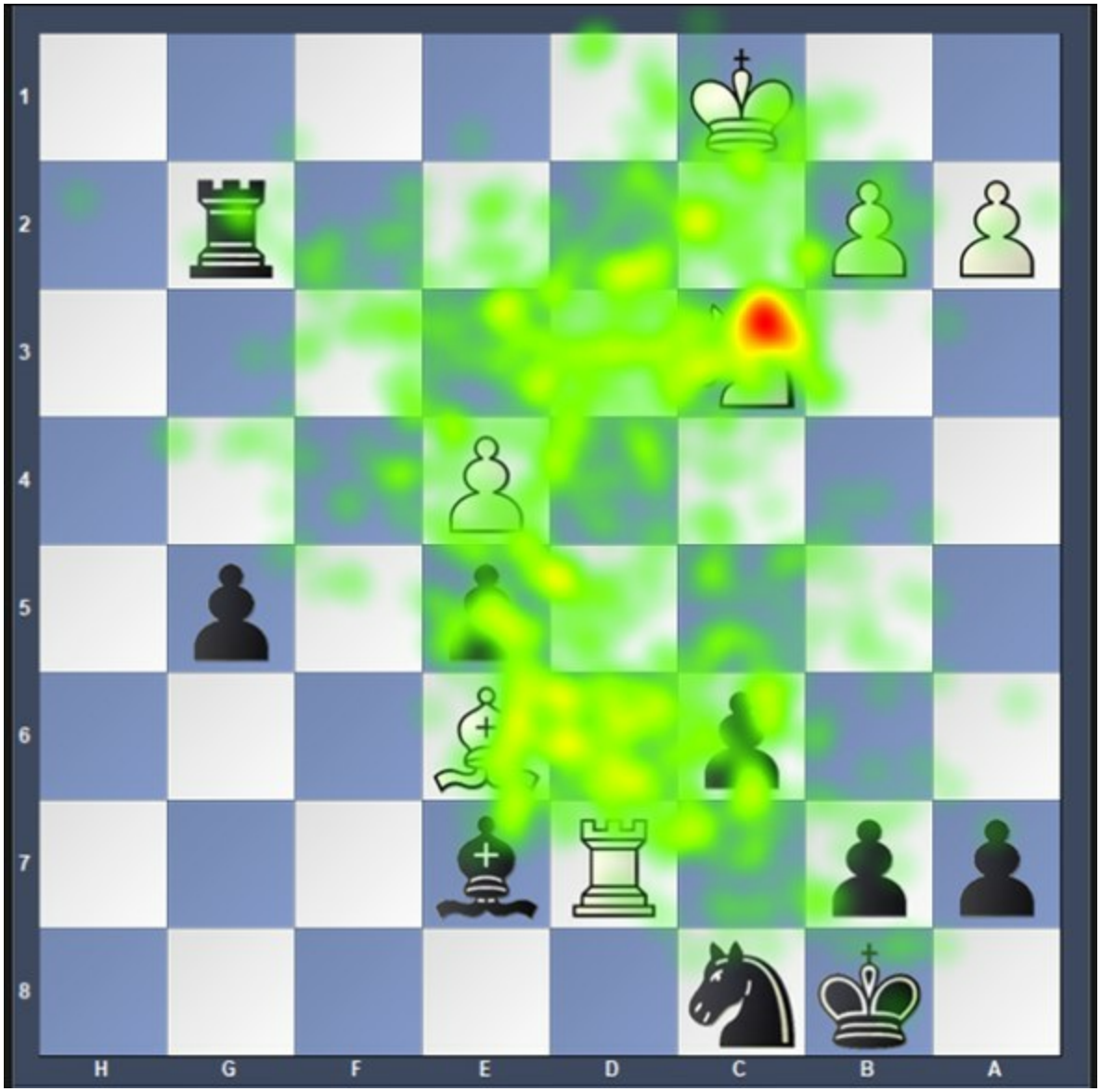
The h4- and h3-squares are a clear point of focus, as I considered advancing the pawn. Moving the variation forward, I inspected the squares on f8 and h8 as possible rook moves for White in response, and the b7-point gets attention for lines where Black eliminates the pawn. The f3- and f4-squares correlate to lines where White tries f2-f3, or the black king moves up the board.

Eyetracker Puzzle 1

I looked at 1...♘xb2 and liked it immediately, but also considered 1...♗g4, when I regarded 2.♘d5 as the best response. I was calculating 1...♘xb2 2.♔b2 ♘c4† 3.♔c1 ♗xc3 4.♖d3 ♗b2† 5.♔b1 ♗g7 as my main line.

Not surprisingly, the c3-square was a hotspot, as Black's bishop will be arriving at that square soon to remove the knight. The b2-square, where Black's knight will capture and the white king will then retake, also understandably got a lot of focus. There was some lighter observation of some of Black's attacking pieces ready to join the assault: the bishop on g7, knight on e5, queen on c7 and rook on a8.

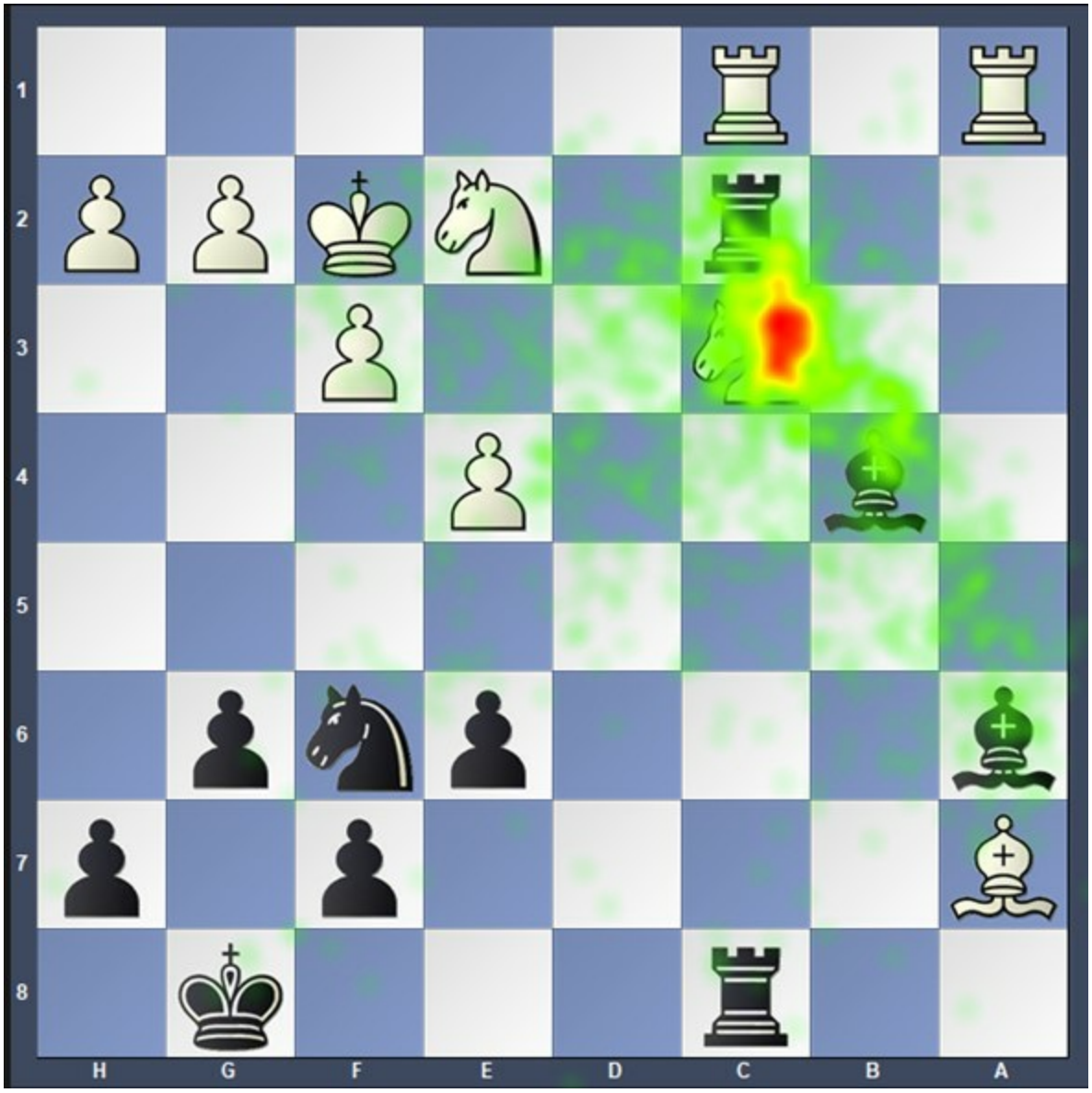
Eyetracker Puzzle 2



I instinctively liked 1...g4, advancing the pawn. Then I thought 2.♘d5 cxd5 3.♗d5 ♗g5† 4.♔b1 ♘b6 was a key variation. I improved White's play with 2.♔d1, the best defensive response, intending ♘e2 to control the g-pawn. My analysis after 2.♔d1 continued 2...♖xb2 3.♗xg4, or 2...g3 3.♘e2.

Some of the highlighted areas in Black's half of the board line up well with the continuation after 1...g4 2.♘d5, which I calculated early on, although it is hard to explain the focus on d6. The light squares on White's first three ranks are well marked, as I considered defensive ideas such as ♖d3, or ♔d1 followed by ♘e2, which are necessary to slow down the advance of the g-pawn.

Eyetracker Puzzle 3



I calculated most captures here, first looking at 1...♗xe2 2.♖xc2? ♗d3, but then realized 2.♘xe2 was a simple and good response.

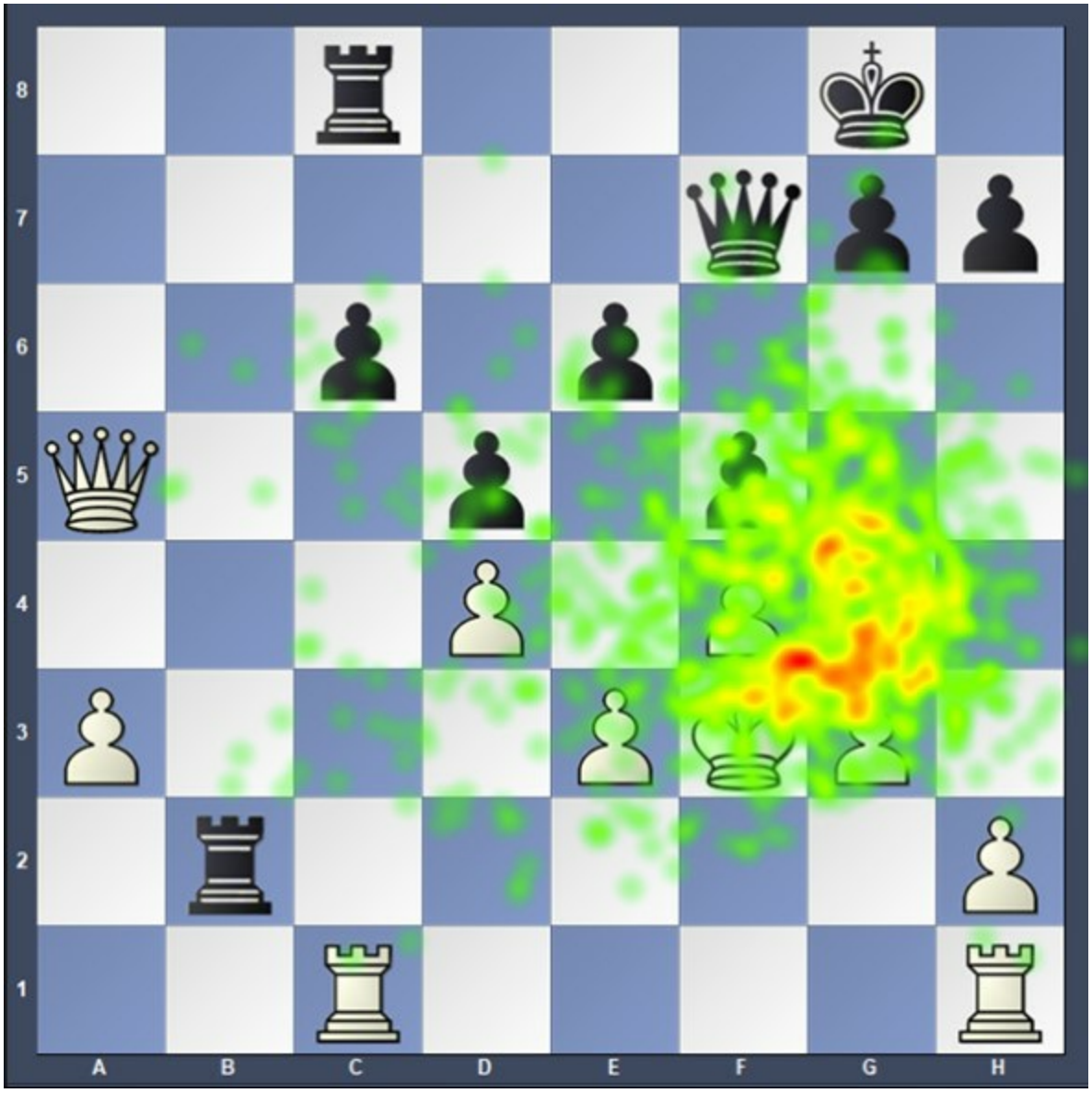
I also considered 1...♖8xc3 2.♖xc2 ♖xc2 3.♖xa6, but concluded it also doesn't lead anywhere.

I was not too convinced by 1...♖xc1 2.♖xc1 ♘d7 as 3.♘a2 swaps more material.

I then moved on to looking at 1...♗xc3, when 2.♖xc2? ♗xa1 wins. I thought White should instead play 2.♖xa6 ♖xc1 3.♘xc1 ♖a8 4.♖c6 ♗e5. I spent some time rechecking those lines, and decided 1...♗xc3 was the best hope to keep some pressure.

Here the c3- and c2-squares are unsurprisingly a major focus, due to Black's first move and the many other possible captures on and around that square that take a lot of calculation. The possibility of ...♗xe2 is also highlighted down the diagonal, and the adjacent diagonal leading to the d4-square is also marked, relating to ♗d4 ideas for White later on in the analysis.

Eyetracker Puzzle 4



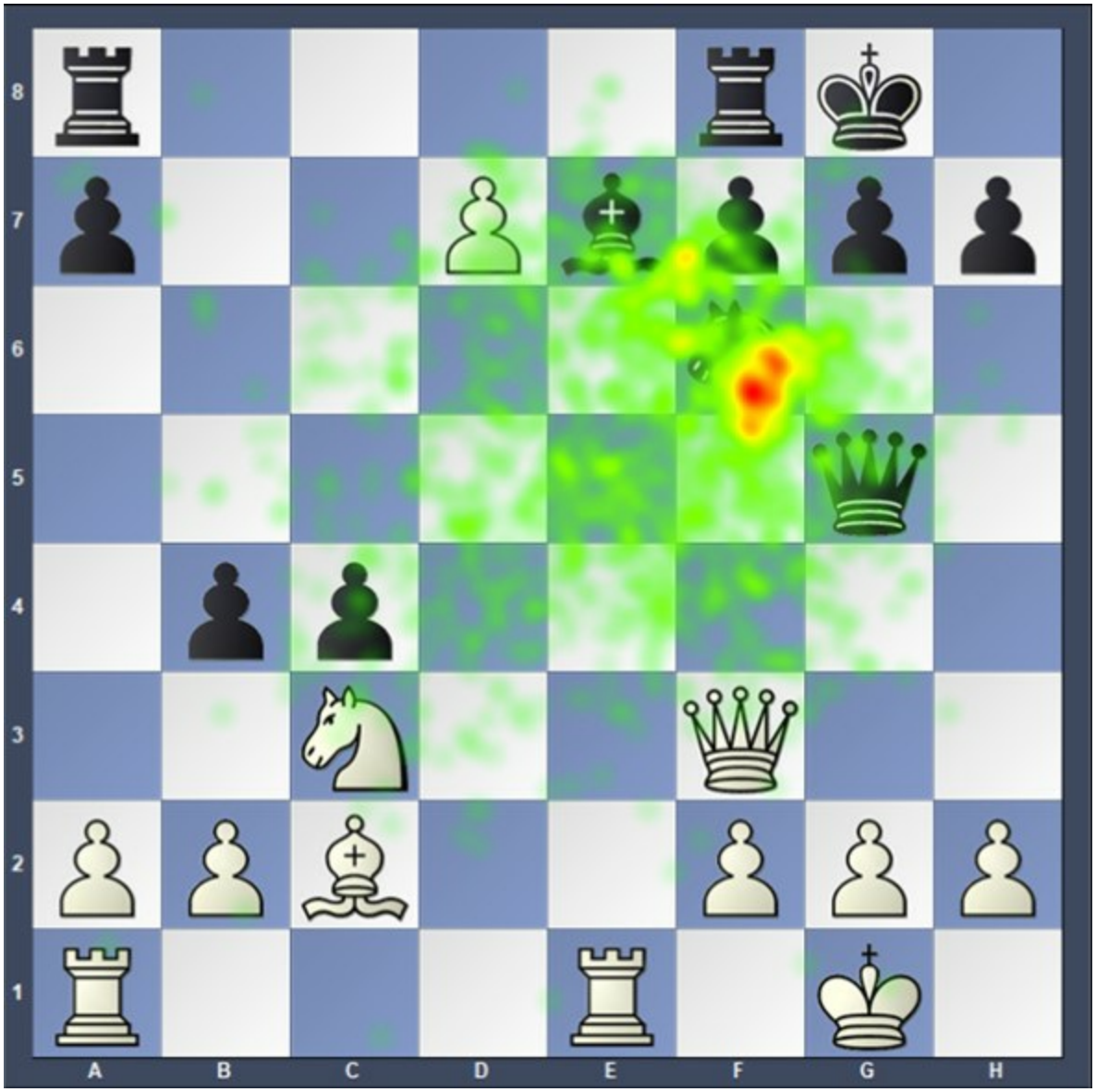
I noted the devastating threat of 1...♕h5†, and judged White would be lucky to prevent a swift mate. I checked 1.♖cg1? ♕h5† 2.g4, but then saw 2...♕h3† 3.♖g3 fxg4 mate.

1.g4 fxg4† 2.♔g3 ♕h5 also looked dire, so I concluded that 1.h3 was the only hope.

I was then impressed by the line 1.h3 ♕h5† 2.g4 fxg4† 3.hxg4 ♕g6 with the strong idea of ...♕e4†. I noticed 4.♔g3 would avoid an immediate mate, but felt Black should be winning.

The focus here is very much on the main line of play and the white king. The variation 1.h3 ♕h5† 2.g4 was clearly getting a lot of attention, and the squares on h3, h5, g4, f5, g6, e4 and g3 all relate to my main line. I also apparently spent some time looking at the king on f3, which I find harder to explain, unless I was wondering how it had ended up in such a bad way! The e4-square is marked, indicating the black queen arriving there on move 4 of the main line, and it appears I may have considered the defensive retreat ♕c3 for White at some moment.

Eyetracker Puzzle 5



I was very attracted to the enticing tactical idea 1.♘e4, but quickly realized that the obvious 1.♖xe7 was a good option as well.

I checked 1.♘e4 first and saw that 1...♘xe4 2.♕xe4 wins, before noticing that

1.♘e4 ♕a5 2.♘xf6† ♗xf6 3.♕xa8 ♖xa8 4.♖e8† mates.

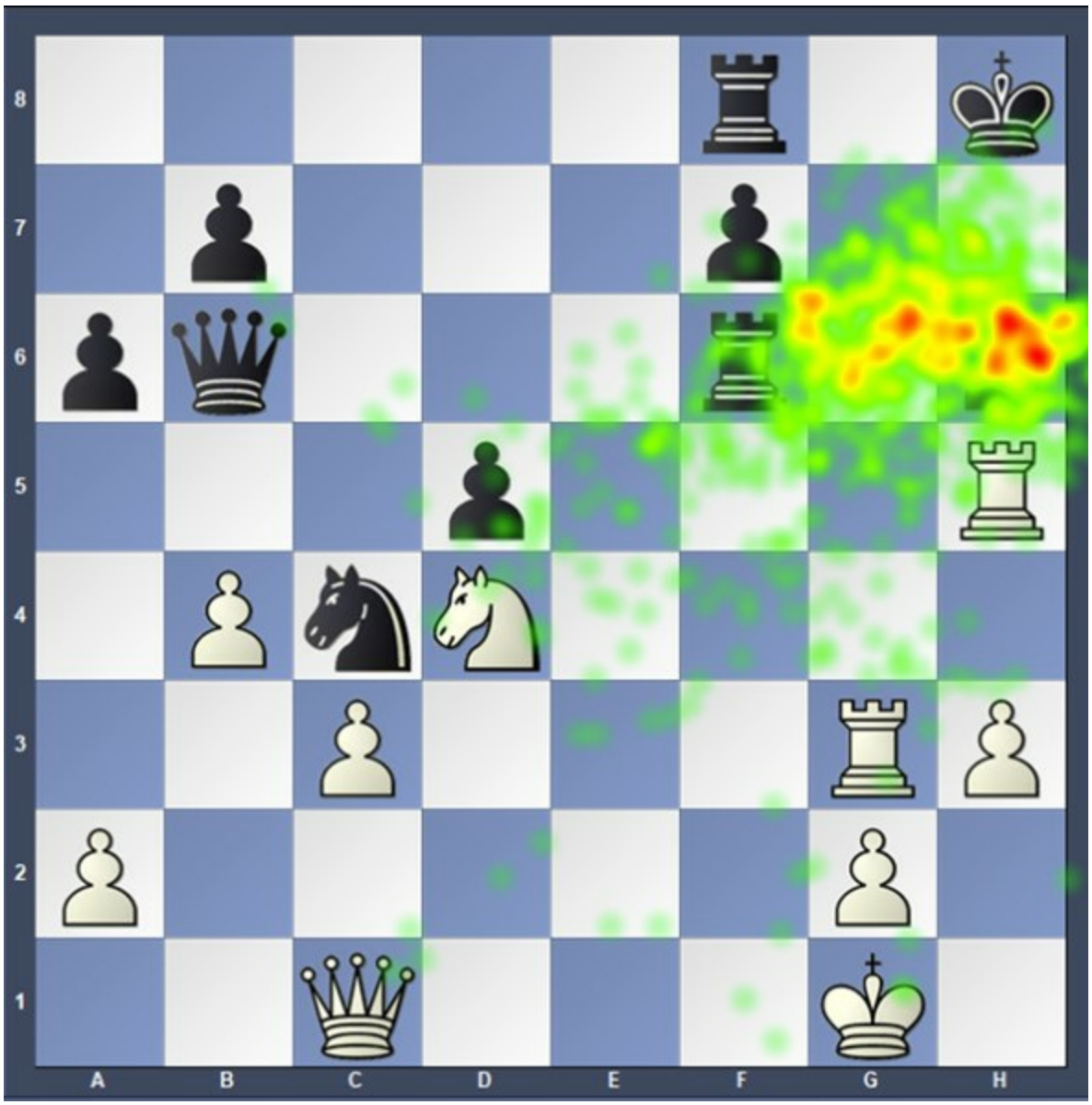
Considering other queen moves in reply, I discovered 1.♘e4 ♕b5 2.♘xf6† ♗xf6 and the queen covers e8, securing the back rank. I still thought this looked shaky and spent some more time on it, but realized there was no immediate refutation.

Then I went back to the mundane 1.♖xe7 bxc3 2.bxc3 and felt that the pawn on d7 can be defended by some combination of ♖d1, ♕f5 and ♗a4 (or ♗f5), maintaining a winning advantage.

This heat map is one of the harder ones to explain. The focus on f6 is a bit confusing, although in general the squares knights are currently situated on seem to get more attention than the starting place of other pieces. There are plenty of green spots to mark the variations arising after 1.♘e4, and the light-square diagonals from c2-h7 and f3-a8 also light up. The b5-square is also marked, reflecting the important line 1.♘e4 ♕b5, and the marking of the bishop on e7 indicates my final choice to

capture it immediately.

Eyetracker Puzzle 6



I quickly saw the strong idea of 1.♕g5 to exploit the pinned h-pawn. After I had noted that 1...♖g6 can be refuted by 2.♖xh6†, I realized that this is clearly the correct way to play. I was then looking at variations such as 2...♔g8 3.♖xg6† fxg6 4.♕xd5† winning the knight. I also considered 2...♔g7 instead, but saw 3.♕h4 looked crushing, with pins everywhere.

The first move 1.♕g5 is less marked on the board than the squares on g6 and h6, but I probably found this move automatic once spotted, and spent more time thinking about the implications of the position after 1...♖g6 2.♖xh6†. This explains the greater focus on those two squares, which are really lit up on my heat map for this puzzle.

Chapter 5.7

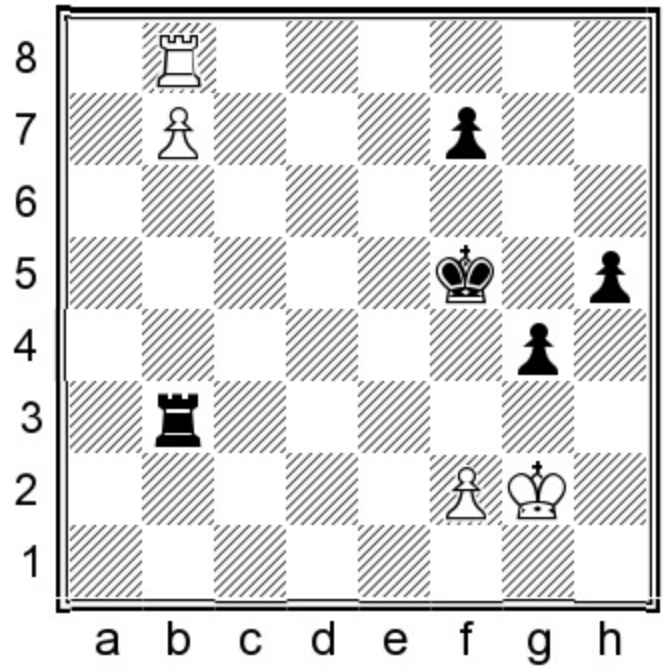
Eyetracker Conclusions

For the eyetracker experiment we set ourselves two main objectives.

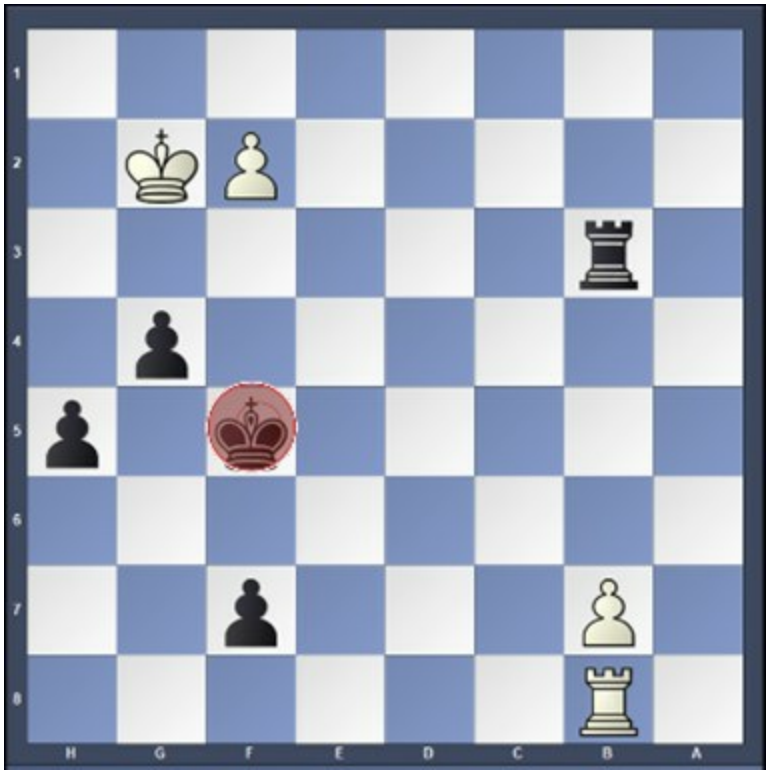
Objective 1

Firstly, we wanted to know if the eyes of a chess player follow the same path as their thoughts, as they mentally move the pieces around the board. This we can answer positively right away: yes, they do.

Eyetracker Warm Up

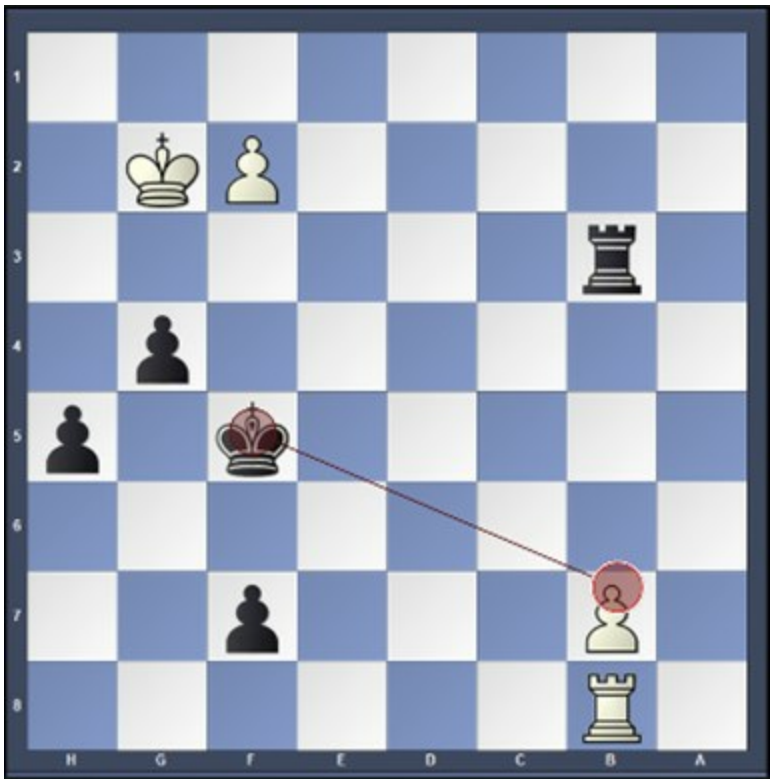


This puzzle was used as a test to see if the tracker could monitor what the player was thinking. The following images are taken from the early stages of Michael's eyetracker recording for the puzzle.

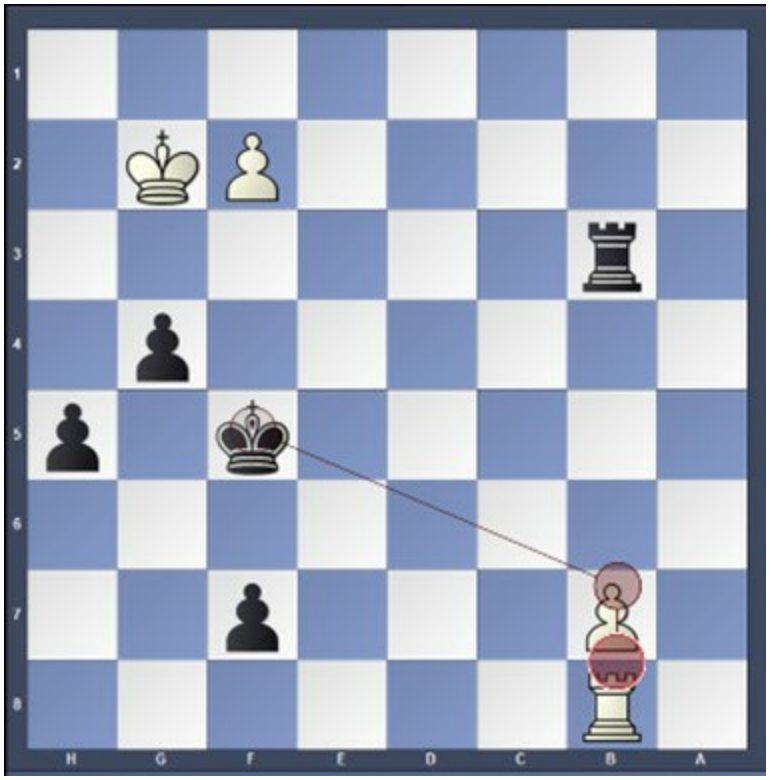


The first thing Michael looks at when he focuses his eyes on the board is the position of his king. He is already focused on this after one second, but we have selected the clearest freeze frames for this example. The one above is from twenty seconds in.

One second later, he turns his attention to White's passed pawn on b7:

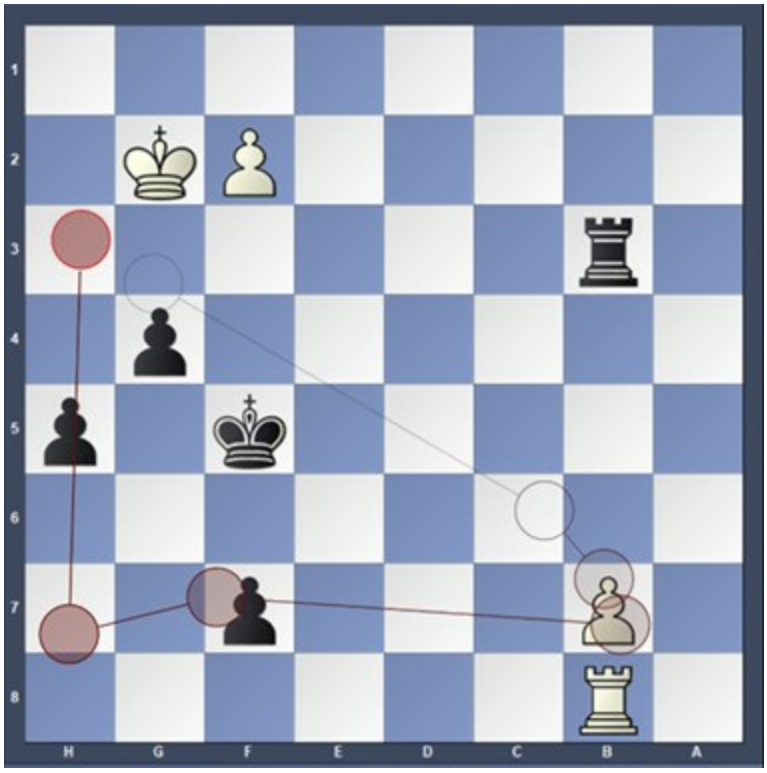


A further seven seconds later, his focus is on White's rook in front of the promotion square:



A couple of seconds later, he has found the correct move 1...h4, and moves on to rechecking the variations.

Roughly a minute later, 102 seconds into his calculations, here is the clearest screenshot of Michael confirming that White is completely lost after 1...h4 2.♖h8 h3†. He is also checking that after 1...h4, White cannot profitably play 2.♖f8, because 2...♖xb7 protects the f7-pawn.

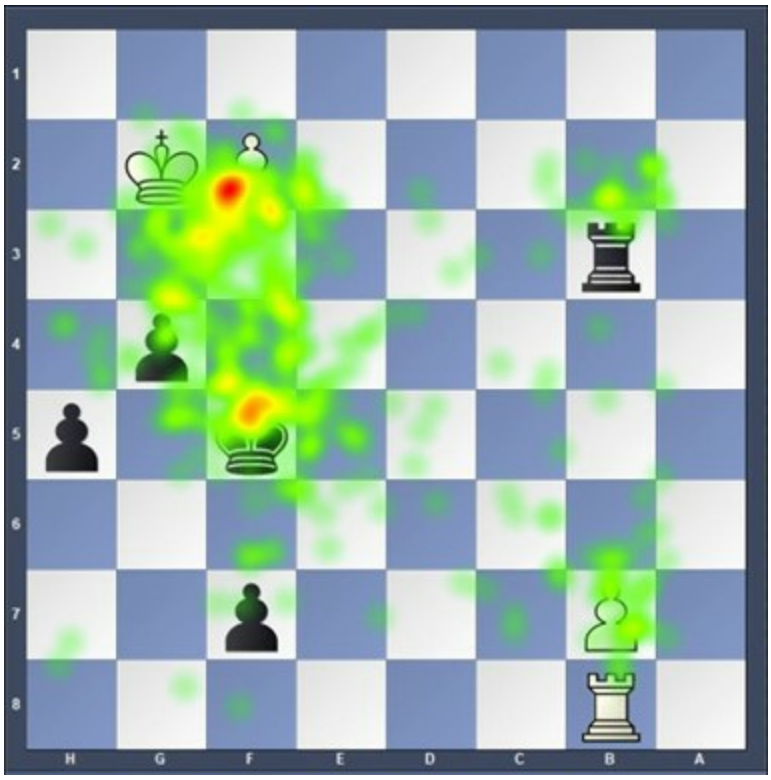


Having noted that rook moves can't help White, four seconds later we can see Michael moving on to recalculating the later stages of the more resilient line 2.♔h2 h3 3.f3 ♖b2†.

From the series of images above, we can clearly determine that the eyetracker imagery can often provide an accurate representation of a player's thought processes.

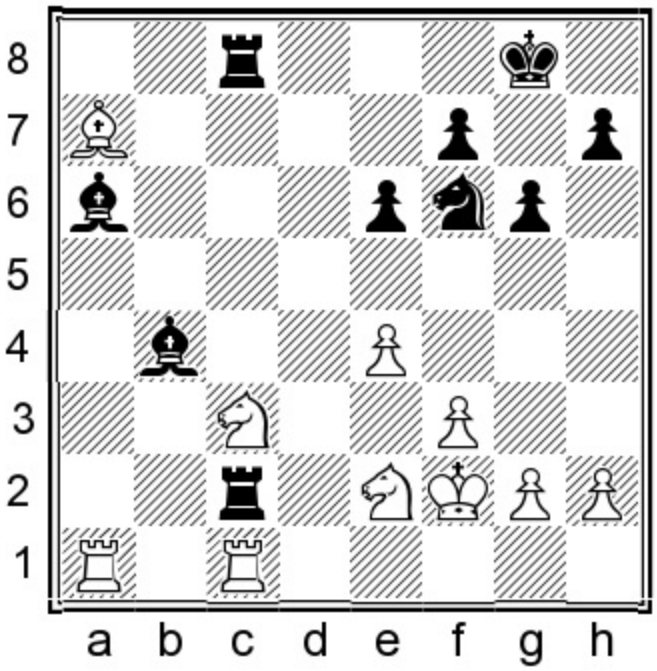
Objective 2

Our second objective was to obtain heat maps for each of the players to highlight the areas of the board on which they focused most of their attention, which corresponded with the lines they analysed. Here is Michael's heat map for the position above to compare to the video stills:



When you first look at a heat map you may intuitively associate intensity of colour with intensity of thought, but it is more a question of strength of focus. A red spot on a square simply means that the player has been looking at that square more often than others.

The heat maps below show us where the player is directing most of their attention. Take Eyetracker Puzzle 3:



The threat to the rook on c2 meant that the heat maps for all the solvers were very similar, with most of the focus on c3, and to a lesser extent c2.

Let's start by looking at the heat map of Akshaya Kalaiyalahan, who eventually decided that the best sequence of play continued 1...♗xc3 2.♖xa6.

In Akshaya's heat map, the c3-square is almost obscured due to the amount of attention directed at that point, as she calculated both 1...♖8xc3 and 1...♗xc3. Turning to some of the green marking, it seems likely that she also contemplated the possibility ...♗xe2 for Black at some stage in her

calculations, and the redeployment of the white bishop to d4 also appears to have come up in some of the variations she saw.

Now we will present the heat maps for the rest of the solvers, along with the continuations they considered best. For reference, Stockfish considers the two best moves to be 1...♖xc1, and 1...♗xc3, both offering Black a very slight edge (–0.3).

Witek Koreywo (Elo 1601)
1...♗xc3 2.♖xc2
Evaluation: +0.5

Gabriel Wolf (Elo 1911)
1...♖xc1 2.♖xc1 ♗c5† 3.♗xc5 ♖xc5
Evaluation: 0.0

Matthew George (Elo 2009)
1...♖xc1 2.♖xc1 ♘d7
Evaluation: –1.25

Louise Head (Elo 2090)
1...♖xc1 2.♖xc1
Evaluation: 0.0

Keith Arkell (Elo 2429)
1...♗xc3 2.♖xa6 ♖xc1 3.♘xc1 ♖a8
Evaluation: –1.0

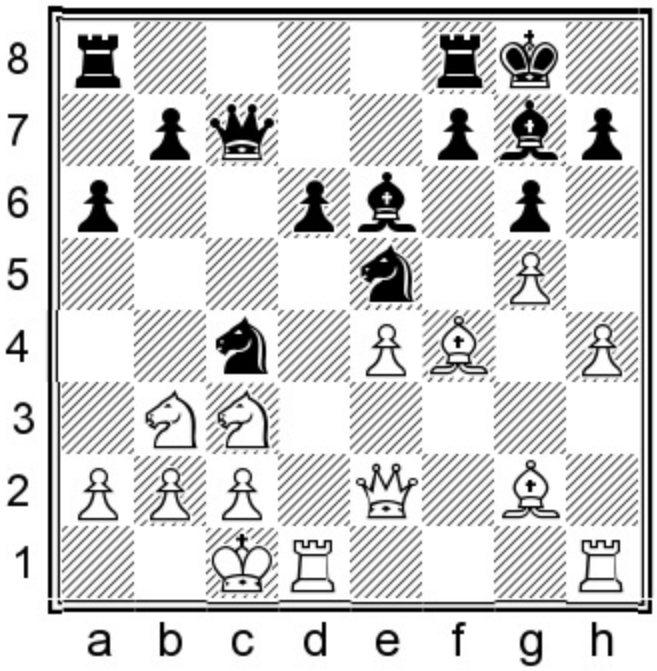
Michael Adams (Elo 2701)
1...♗xc3 2.♖xa6 ♖xc1 3.♘xc1 ♖a8

Evaluation: –0.4

Due to the forcing nature of the above position, all the players focused the vast majority of their attention on a few key squares where most of the action takes place. There is relatively little energy spent looking at moves on any other section of the board.

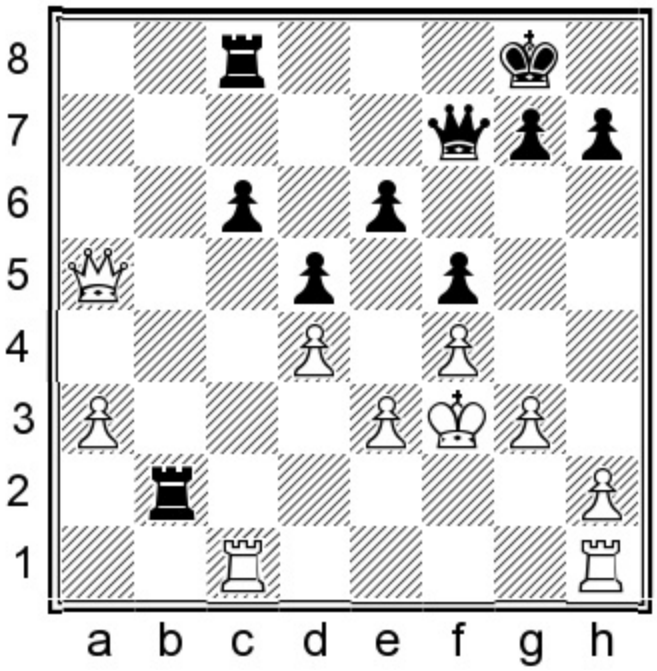
This is in stark contrast to the more complicated test positions, where we were able to observe considerable differences in the level of focus on different areas of the board from one player to the next. Phil had noticed from witnessing strong grandmasters solving puzzles, and especially so with Michael, that they quickly pinpoint their attention to the best moves, usually within seconds, and do not deviate much of their attention considering other moves.

Before checking the Eyetracker results from a more complicated position, we should take a quick look at Puzzle 1:



Phil was curious how long it would take for players' eyes to focus on the 1...♘xb2 capture. In Michael's case, the answer is pretty quickly! The following image shows that, after only six seconds, Michael has already moved his attention on to that square and is calculating White's reply 2.♔xb2.

Let's move on to a more complex example in Puzzle 4:



Here all the solvers correctly chose the best defence 1.h3 to avoid getting mated in a hurry – but from then on, the heat maps and video stills tell contrasting stories. Let's start look by looking at the answers for the two GMs, Michael and Keith.

There is quite a bit of overlap, with a clear focus on the kingside, and in particular the squares around g4 are the centre of attention, although the two players selected different responses in reply to White's first move. Their intuition tells them that the kingside is the area they need to focus on.
Stockfish's solution here runs 1.h3 ♕h5† 2.g4 fxg4 3.hxg4 ♕g6! when the machine cheekily announces mate in twelve! The engine also confirms Keith's recommended line as winning.

Let's recap each grandmaster's solution and compare it to the heat map and eyetracking results.

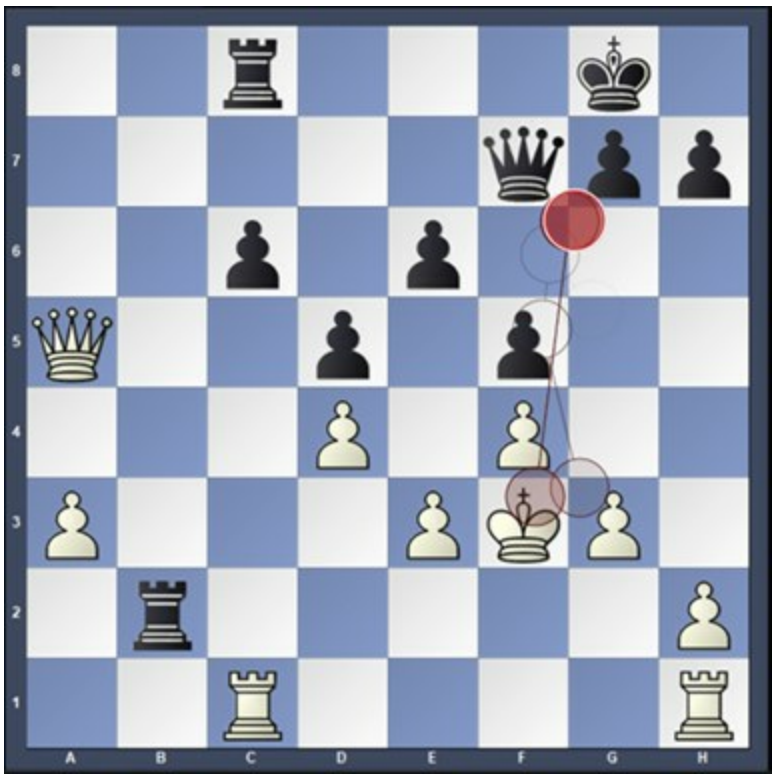
Michael Adams (Elo 2701)
1.h3 ♕h5† 2.g4 fxg4 3.hxg4 ♕g6! with the idea of ♕e4†.
Evaluation: –3.0

The heat map shows the obvious concentration on the relevant area of the board.

By moving on to Michael's gaze plot, we can pick out some more details. There follows an illuminating sequence to demonstrate the early stages of his cogitation process. We pick up the line after the initial moves 1.h3 ♕h5† 2.g4, when we see Michael considering the forcing captures 2...fxg4† 3.hxg4, and starting to focus on the g6-square, twenty-three seconds in. From that moment, the following three diagrams were all generated within a mere three seconds of elapsed thinking time, showing his calculation of that variation.

The first freeze-frame below shows the moment when Michael spots the key retreat 3...♕g6, which he was the only player to find:

Running the video on for one second, the attention on g6 intensifies as Michael realizes the strength of 3...♕g6, contemplating what will happen to White's king after the queen lands on e4.



Less than a second later, as the central outpost can't be covered, he is switching more intensely to White's response 4.♔g3, so at least the queen won't arrive with check.

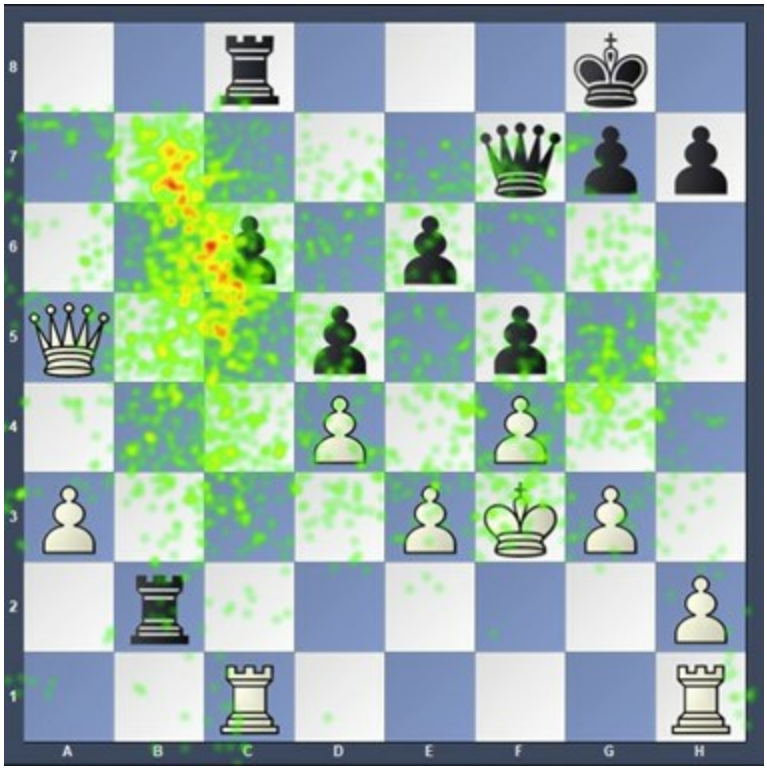
Turning to Keith's heat map, the intensive focus on the kingside is similar, but he preferred 1...g5, aiming to open more lines towards White's monarch, which explains why that square is more heavily marked.

Keith Arkell (Elo 2429)
1.h3 g5
Evaluation: more than –2.5

This gaze plot after just twenty-nine seconds shows Keith is already deep into analysis of his favoured line 1.h3 g5, considering the natural capture 2.fxg5 ♕h5† 3.g4 fxg4†, achieving his desired aim of opening kingside lines. Eventually he chooses 1...g5 with an assessment of a winning position for Black.

Perhaps the most interesting data comes from Gabriel Wolf below, as he is initially tempted by the plan to play 1...♕b7, but also senses that 1...♕h5† with kingside attacking ideas appeals, and he divides his concentration between these two options. He eventually can't see how to succeed on the kingside, and gets completely sidetracked to the other side of the board, completely losing sight of the fact that he should be aiming for a direct attack. The heat map shows his twin areas of interest, with the greater emphasis on the queenside where he eventually decided to make his move.

Gabriel Wolf (Elo 1911)
1.h3 ♕b7 2.♖c5 ♖a8
Evaluation: –0.3



Gabriel's gaze plot paints a more complete picture. After twelve seconds Gabriel focuses on the position of the white king, and how Black should use the queen to target it.

After nineteen seconds, he looks at the black queen moving towards b7. He is already turning his attention to the rook on c8.

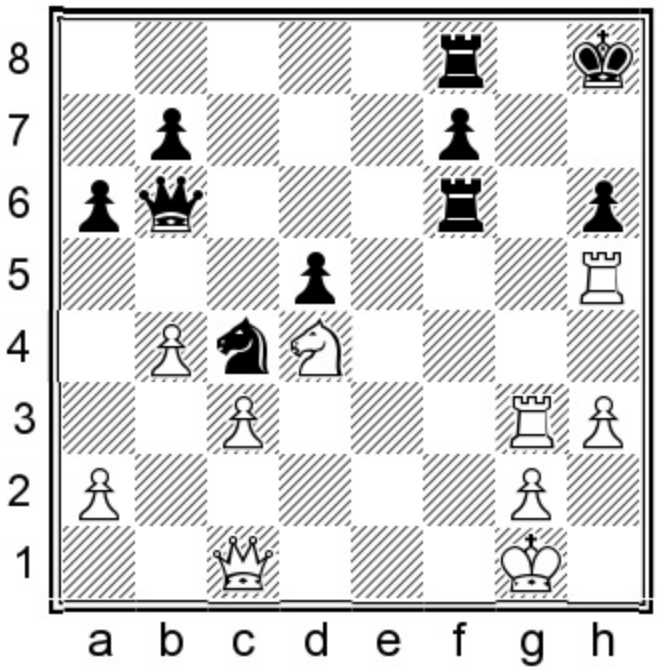
We see the reason for this one second later – the queen move is intended to prepare ...♖a8 driving the white queen back.

Not completely convinced by this, forty-eight seconds into the puzzle Gabriel turns to the other side of the board, looking at the 1.h3 ♕h5† 2.g4 line, but he is unable to find a convincing follow-up for Black.

From now on, Gabriel struggles to choose between the two contrasting plans, jumping back and forth. 111 seconds in, he returns to ...♕b7 ideas:

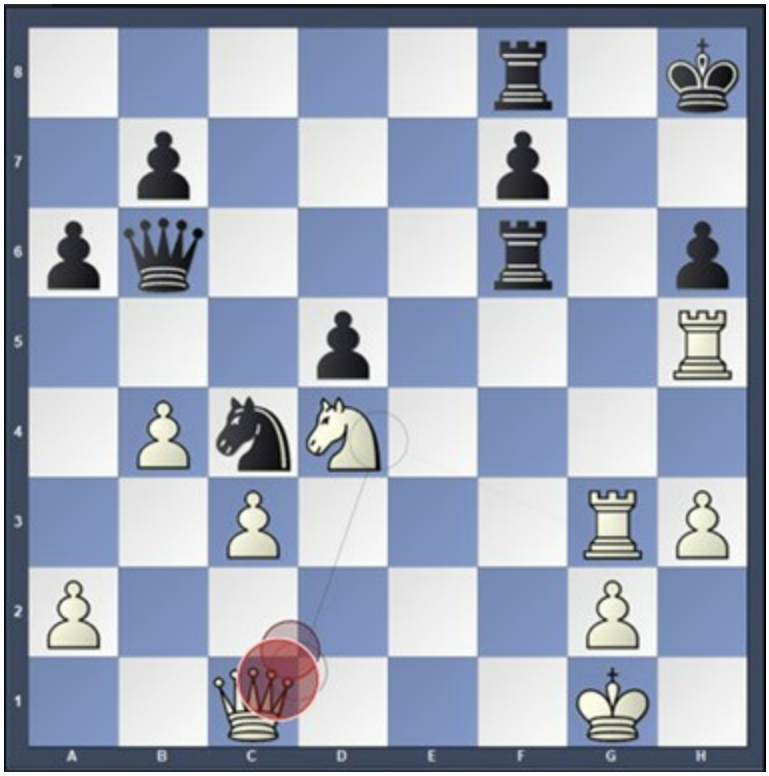
Running things on quite a bit further, after 278 seconds, he's back to thinking about the kingside again. Then he returns to his original move, and finally settles for 1...♕b7 after about seventeen minutes' thought.

Puzzle 6 below proved to be another good one for observing differences between the solvers' eye movements.



Phil looked into Michael's video in detail to determine what the software would say about Michael's initial eye movements. Considering that the best move is 1.♕g5, how long would it take Michael to zoom in to the g5-square?

Michael spends the first three seconds giving the position a general look, without any particular focus on any of the pieces. Then a large circle surrounds the enemy king on h8 – and three seconds later, another large circle surrounds his queen on c1.

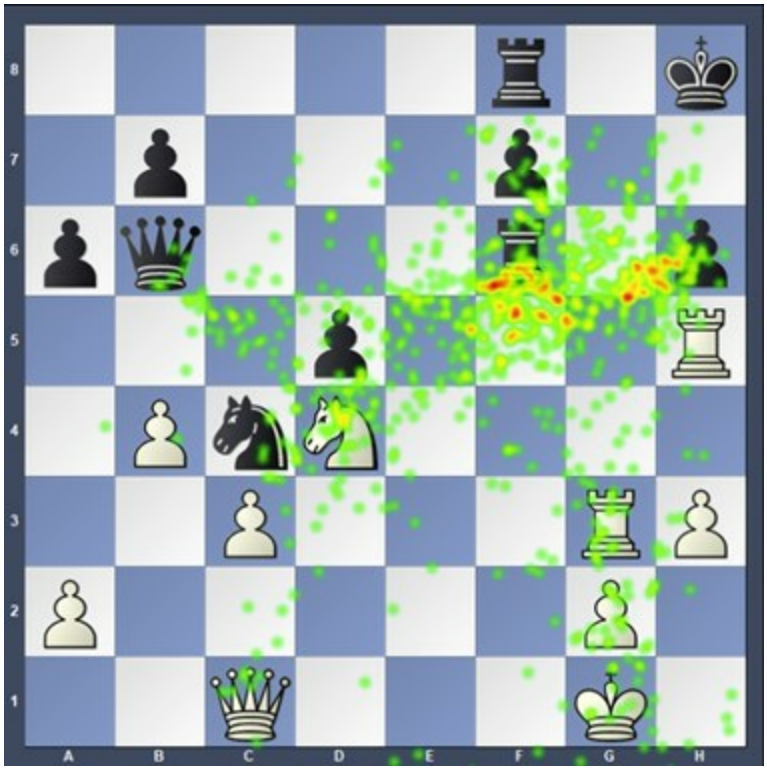


After just six seconds, it seems the ‘orientation phase’ is over, and now Michael is already checking candidate moves. Shortly after, just fifteen seconds into the puzzle, lots of gaze circles concentrate around the squares g5, g6 and h6:

From Michael’s gaze plot above, taken fifteen seconds from the start of the puzzle, we can see he has already spotted the winning move 1.♕g5, and is probably already looking at the forced 1...♖g6 and the crushing continuation 2.♖xh6†.

The forcing nature of the best line ensures that Michael's heat map also paints a clear picture. He gives some attention to the g5-square, where he intends to move his queen. He looks more intently at g6, where the black rook will block in order to defend against the mate. The h6-square is marked even more intensely, as Michael sees that the pawn on that square will be taken next with check. This corresponds to his best variation, which runs 1.♕g5 ♖g6 2.♖xh6† ♔g7 3.♕h4.

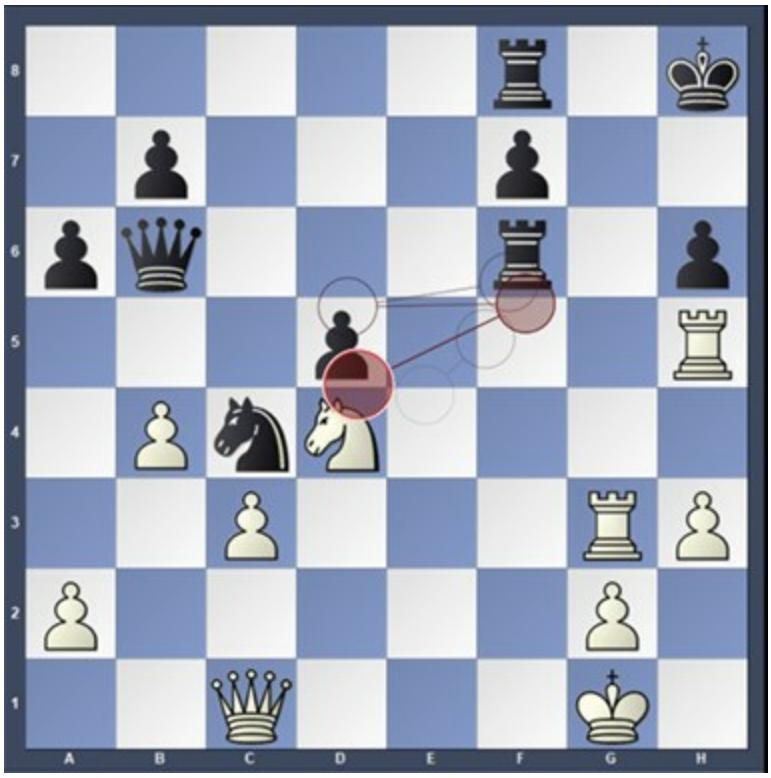
In contrast, lower-rated players who struggle to find the right way to bring the queen into the attack will invariably examine a wider range of moves across a larger area of the board. Take the heat map generated by Witek Koreywo (Elo1601):



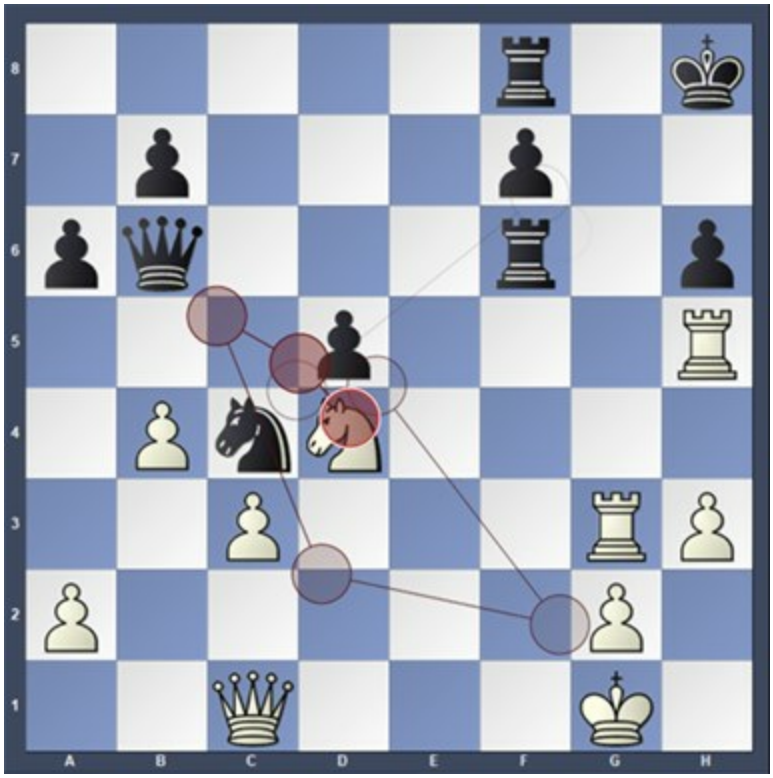
Witek failed to find 1.♕g5, although he clearly understood that White should be looking to play on the kingside in some way. Witek's main idea was to involve the knight in the attack with 1.♔h1 intending 2.♘f5. There are lots of green dots down the b6-g1 diagonal, showing that Witek noticed that the knight is pinned by the queen on b6. The red marking on f5 and h6 represent Witek's thoughts of moving the knight to f5, aiming to attack the pawn on h6.

Let's follow the process in more detail with Witek's gaze plot. After eighteen seconds, he notices h6 is weak:

After twenty-nine seconds, he considers playing ♘f5 to increase the pressure on that pawn.



After seventy-eight seconds there is a chain of red dots along the diagonal from b6 towards g1. Witek wants to solve the issue of the pinned knight which means that ♘f5 is not possible immediately.



After 109 seconds, Witek considers moving his king to h1 to avoid the pin:

1.♔h1 is the move he would end up choosing three minutes later. Witek's problem was missing the best candidate move, which meant he had to settle for a merely very decent continuation rather than the completely crushing solution which was found by the stronger players.

Conclusion

Overall the eyetracker experiment was a great learning experience. It opens up new research avenues into the cognitive process of a chess player. It also has fantastic potential as a visual tool for helping commentators and the viewing public to understand what could be going through the minds of the players. The heat maps and gaze plot videos both seem well suited to helping the audience visualize secrets about where players are focusing their attention, adding excitement and value to viewers watching the game.

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