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# Background: Chess Problems and Problem Chess

A number of years ago the following story made its way around the Internet. It was said to be the transcript of an actual radio conversation of a US naval ship with Canadian authorities somewhere in the Atlantic off the coast of Newfoundland:

AMERICAN SHIP: Please divert your course 15 degrees to the North to avoid a collision.

CANADIAN REPLY: Recommend you divert *your* course 15 degrees to the South to avoid a collision.

AMERICAN SHIP: This is the Captain of a US Navy ship. I say again, divert *your* course!

CANADIAN REPLY: No. I say again, you divert *your* course.

AMERICAN SHIP: This is the aircraft carrier USS Lincoln, the second largest ship in the United States' Atlantic fleet. We are accompanied by three destroyers, three cruisers and numerous support vessels. I demand that YOU change your course 15 degrees North – I say again, that's one five degrees North – or countermeasures will be undertaken to ensure the safety of this ship!

CANADIAN REPLY: This is a lighthouse. Your call...

Although it has since become known that the story is purely fictional, it's still really good. Furthermore, it illustrates well the fact that it isn't very good to be too limited and too cocksure. This makes it difficult to absorb new facts. So, dear readers, I hope you haven't already committed yourself to the attitude that you don't like chess problems. Take this opportunity to get some new impressions and maybe get a whole new view of the form of art which we here call problem chess. In this chapter I shall start by telling you how I became a chess composer.







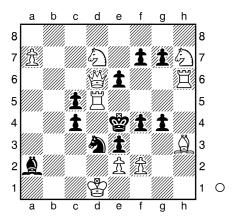


If you are interested in chess, you have surely on many occasions been confronted with chess problems of some kind. Probably most chess-players have. Most likely you have also tried to solve some, if only a few problems from the local newspaper's Christmas contest or from some regular chess column. If nothing else, I would guess that most chess-players have practised by solving the combination exercises commonly found in chess books. Maybe you have appreciated this form of entertainment; maybe you belong to the group of 'orthodox' chess-players who think that chess problems are just nonsense and artificial constructions, and argue "why should I bother to look for a mate in three moves when I'll certainly win the endgame anyway?" In any case, let me give you my personal view on the fascination with chess problems.

I have always found chess problems to be something fun – as long as I've been playing chess, that is. Early on, I started to study the problems found in the Sunday issue of our newspaper, alongside other riddles and brain teasers. I can no longer remember when it was, but I do remember that it was so long ago that I didn't know the meaning of the various piece symbols in the diagram. It was anyhow interesting to see if I could figure out the solution – and part of the solving process became to figure out the actual problem. Anyway, this was very much the same interest as I held in my early years for all types of brain puzzles.

At that time I spent a lot of time with a neighbour kid who played chess at the local chess club. His father was an accomplished chess-player and became my chess teacher. He also awakened my interest in chess problems as he composed some himself and gladly showed me what he was doing. Even my friend helped to increase my interest. I particularly remember how impressed I was when he showed me Tamerlane's Iron Cage...

#### Tamerlane's Iron Cage

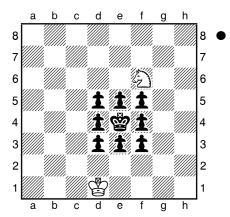


Smothered mate in 10 moves

#### SOLUTION:

1 f3+ gxf3 2 exd3+ cxd3 3 \( \frac{1}{2}5+ exf5 4 \) \( \frac{1}{2}66+ \frac{1}{2}x66 5 \) \( \frac{1}{2}x66+ \frac{1}{2}x66 6 \) \( \frac{1}{2}x4+ \cxd4 7 a8 \) \( \frac{1}{2}x+ \cxd5 8 \) \( \frac{1}{2}x45+ \cxd5 9 \) \( \frac{1}{2}65+ \frac{1}{2}x65 10 \) \( \frac{1}{2}66# \( (D) \)

(Appendix A contains a brief overview of basic chess notation as used in chess composition in general and in this book in particular.)



I was so fascinated that everything worked so smoothly that I wrote down the position and the moves and learned it all by heart. Oh yes, I can still reconstruct all the essential parts of the position (and the move sequence isn't uniquely determined). This is perhaps not what you normally mean by a chess problem – White can actually mate on each move, if he'd like – but the final position isn't bad. Talk about being smothered!

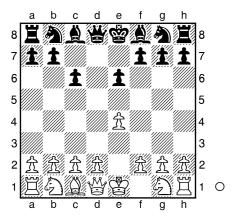
At this time, I found sacrificial combinations to be more fun than 'real' chess problems, but I

was also very interested in my friend's old edition of Kurt Richter's *Schackkavalkad*. The problems I tried to solve were the two- and three-movers I stumbled over in the newspaper, or maybe something some chess companion had seen and wanted to share. I rarely studied the problem pages in *Tidskrift för Schack* (TfS), the magazine of the Swedish Chess Federation, but I remember that I was very fascinated by their Christmas contests, especially those years when they had some 'special' problems.

Here are two examples from the 1970s. In particular the second one nearly made me and a fellow at the chess club in Skellefteå go nuts.

PROBLEM 1: Black and White play a regular game where Black gives mate on his fifth move by advancing a pawn to its eighth rank and promoting it to a knight. What is the final position?

PROBLEM 2: The following position arose after Black's 4th move (note: not 3rd – that's trivial). Game score?



Tibor Orban

Commendation, Die Schwalbe, 1976 Position after Black's 4th move

The game in problem #1 must have been something like this (the move-order might vary but the end position is the same):

SOLUTION:

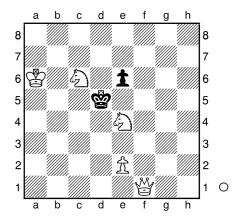
1 d4 e5 2 b3 exd4 3 \$\displaystyle d3 4 \$\displaystyle c3 dxe2 5 \$\displaystyle b2 exd1 \$\alpha #\$

And the position in the diagram is reached in four moves thus:

SOLUTION:

1 e4 e6 2 **\$b5 \$e7!** 3 **\$xd7** c6 4 **\$e8 \$xe8** 

Quite early on (in my middle teens) I also tried to make some of my own problems. The first ones consisted of lots of pieces. Some are preserved, scribbled on the back of a flyer from Skellefteå AIK's gift shop. I particularly remember one problem from that time, which I'm still rather happy with – although by now I have found out that Martin Winkler made an almost identical problem as long ago as 1928. Well, since I hadn't seen his problem, I'm anyway satisfied with what I managed to accomplish, even if it had been done earlier.



**Göran Forslund** (at age 18) [Anticipated] Mate in 2 moves

SOLUTION:

1 **省f7!** (zugzwang)

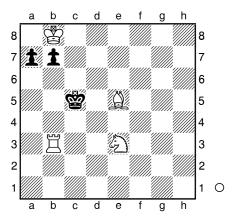
1...\$xc6 2 ₩b7#

1...**∲c4 2 ₩**xe6#

1...\$xe4 2 ₩f3#

During the fifteen years that followed after I graduated from high school and left home, I pottered with chess composition rather infrequently. It was fun, but it was difficult to know what others might appreciate. The first time I submitted a problem to a magazine was when Tidskrift för Schack had a competition for "beginners and less experienced problemists". Unfortunately, it didn't provide any real measure of the quality of problem, as only two entries were received. No prizes were awarded but the two

contributions each received an honourable mention. It was a shame, because I think this really is a great problem.



Göran Forslund

HM, *Tidskrift för Schack*, Novice contest, 1989 Mate in 4 moves

SOLUTION:

1 **⊈**xa7

1...\$c6 2 \( \bar{2}\) \( \bar{

1...b5 2 \( \bar{2} c3 + \displa b4 3 \\ \Delta c2 + \displa a4(a5) 4 \( \bar{2} a3 # \)

1...b6 2 **含b7(!)** b5 3 **罩a3** 

3...b4 4 **\(\beta\)**a5#

3...\$b44 \$d6#

Well, I kept tinkering with the pieces, and the club member and problemist Åke Hellström (1920-2010) helped keep my interest going. He often showed me his problems and the fact that he was also interested in my efforts and suggested improvements was encouraging. Occasionally I succeeded in creating something I was happy with, and some of these works were published in the club magazine *LASSmeddelande*. But it was all rather random until the beginning of 1994.

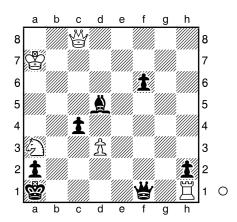
In January 1994 someone at *Svenska Problemschackklubben* (the Swedish Chess Problem Club) made an effort to attract new enthusiasts, and distributed free copies of the club magazine *Springaren* to prospective members. Fortunately, I had happened to end up on this list, and I immediately became interested and took out a subscription. Just the fact that there was such a phenomenon as a chess problem club intrigued me. Furthermore, there was another problem

composition tourney for beginners ongoing, so I ventured to enter some problems, which I found to be rather good. And I didn't win!

It would have been easy to accept the fact and think that "well, I'll guess they're simply better than I am". If I had felt so. But I didn't! The thing that bothered me was that I simply could not understand why the problems that won were considered to be that good. Things weren't improved by the other contest I found in the same issue, a Christmas tourney, a composition contest of the lighter kind, with a simple theme and a few months' time-limit. The theme this time was:

"All kinds of problems with at least two moves by a line-pinned piece (or line-pinned pieces)"

Line-pinned means that a piece is partly pinned, but it can still move along the line on which it is pinned. Now, when I started composing for the beginner's tourney, I thought I would be bold enough to contribute something to the big boys' tourney too. I came up with an idea I felt might be fun: what if you were able to mate while the mate-giving piece itself was pinned? This resulted in the following problem.



Göran Forslund

Springaren Christmas tourney, 1993 Mate in 3 moves

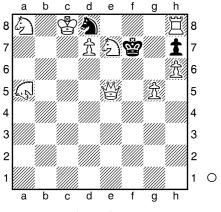
SOLUTION:

1 ₩c5

Threatening 2 \(\delta\)d4+ c3 3 \(\delta\)xc3#.

1... **当g1 2 当b6** (threatening 3 公c2#) **2...cxd3 3 当d4**#

I found this to be a pretty nice problem which clearly showed the thematic requirement of moves by 'line-pinned pieces' with two white and one black thematic move. I looked forward with great expectations to find out how such a problem was valued. The March issue appeared and finally came also the summer issue. I opened it, and what did I see? Well, not only that my problem was not among the 13 selected out of 29 submitted (I could accept that) but that the first prize winner looked like the next diagram, which was something I found hard to swallow.



Kjell Widlert

1st Prize, Springaren Christmas tourney, 1993 Selfmate in 10 moves; white Rose a5 (selfmate = White begins and forces Black to mate)

#### SOLUTION:

1 \$\inf3!\$ \$\overline{\Omega}b7 2 \$\infty\$h2+!\$ \$\overline{\Omega}d6+3 \$\overline{\Omega}d8 \$\overline{\Omega}c4 4\$ \$\overline{\Omega}d6+!\$ \$\overline{\Omega}c5 \$\overline{\Omega}c7 \$\overline{\Omega}f3 6 \$\infty\$c4+ \$\overline{\Omega}c4 8 \$\overline{\Omega}g6+ hxg6 9 \$\infty\$b7+ \$\overline{\Omega}d6 10 \$\overline{\Omega}c8 \$\overline{\Omega}xb7#\$

From the judge's comments in the prize list: "The Rose (RO) is a piece reminiscent of the Nightrider (N) but with the peculiarity that it

Nightrider (N) but with the peculiarity that it moves circularly. This gives it a surprising coverage, which you will have to follow with your finger on the board to properly understand. (A Rose on b2 can move along the lines b2-a4-b6-d7-f6-g4-f2-d1 and b2-c4-e5-g4-h2.) The d8-knight is thus pinned by the Rose on a5 (a5-b7-d8-f7) but may move to b7 ... With alternate zugzwangs and checks, the black knight is piloted to b7 ..."

If you find it hard to follow, don't despair. I myself didn't understand anything of the actual

### Geometrical Problems: A Matter of Form

When I was a child we had a drawing toy called Spirograph. It was a system of different-sized plastic gearwheels with small holes for pins and pens. You pinned one wheel to a piece of paper on top of a piece of cardboard, then selected another and made its teeth engage with those of the first piece. With a pen placed in a hole in the moving gear, you made it move around the static one. When the wheel rotated, the tip of the pen moved in a curve around the pinned piece, but not all of the time at the same distance. Rather it moved back and forth, in and out, in step with the movement of the pen hole around the axis. Depending on the ratio of the number of teeth of the gearwheels, a number of different patterns could emerge. Sometimes these patterns were reminiscent of flowers or stars, and sometimes they were simply a web of lines. I don't think I understood much of how it worked, but it certainly made some pretty pat-

When several years later I was studying mathematics at university, I once had to help a friend understand a class in abstract algebra. Suddenly I came to think of the old Spirograph. With this I managed to illustrate group isomorphism (nowadays I barely remember what that means...). Anyway, by that time I had a pretty good understanding of the secrets behind the different gear ratios that generated the different patterns. However, this didn't mean that I liked the patterns any more or less.

My point is that a beautiful pattern can be regarded as exactly that – a beautiful pattern. The same thing applies to certain chess compositions. If the chessmen are distributed in an elegant way or move in harmonious paths, it is often possible to appreciate this fact even if you don't understand the cause of the various patterns.



Having been involved in chess composition for a number of years, I have observed that there

is at least one kind of problem that might fascinate even those who know almost nothing about chess. These are problems that make an immediate impression due to their heavy reliance on the visual impact. It might be because the pieces move in geometrical patterns or in some other spectacular way. It might also be when the initial or the end position has an unusual, if not bizarre, appearance. Sometimes the pattern might not be entirely obvious, but as soon as I've drawn attention to that aspect of the problem, the other person has at least nodded appreciatively. Even when these compositions lack any deeper strategic content, it still isn't easy to create such interesting positions. In this chapter I shall show you a number of examples of such ideas.

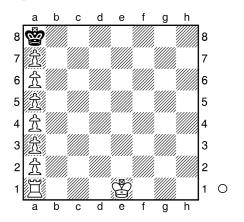
#### **Spectacular Positions**

The problems that most easily attract attention are those where the position on the board looks so weird that even someone who hardly knows the rules of chess reacts when shown the position. This is most obvious if the initial position draws attention, but even an exciting final position might do the trick. Just check the first example in this book, 'Tamerlane's Iron Cage'. Showing that mating position to somebody will most certainly cause them to raise their eyebrows. Anyway, my intention is to present a variety of problems where the diagram position is hopefully enough to catch your interest and make you take another look at the problem. First of all we have...

#### **Pawn-Formations**

Strange or startling pawn-formations appear in many problems; sometimes, when the aim is to amuse, this might even be the whole point. Personally I find such problems enjoyable – to a certain degree. Too much of the same tends to get a bit tedious, at least if the actual play isn't so interesting. One example with a certain amount of flow is my help-stalemate in the

'Background' chapter. Here is another, a well-known problem from the late 19th century.



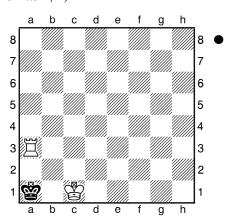
William A. Shinkman

St Louis Globe-Democrat, 1887 Mate in 8 moves

Well, this position doesn't look completely normal, does it? However, it seems to be *legal* as it takes 15 captures to bring all the white pawns to the a-file and Black is lacking exactly 15 men. A position is considered legal if it is theoretically possible to reach it in an ordinary game of chess by a sequence of legal moves. The importance of legality in chess problems is something that is debated, but especially in orthodox problems it is usually seen as a serious blemish if the start-position is illegal.

SOLUTION:

1 0-0-0! \$\dispress{xa7} 2 \boxed{\textsup} d8 \dispress{xa6} 3 \boxed{\textsup} d7 \dispress{xa5} 4 \boxed{\textsup} d6 \dispress{xa4} 5 \boxed{\textsup} d5 \dispress{\textsup} \dispress{xa3} 6 \boxed{\textsup} d4 \dispress{\textsup} \dispress{xa2} 7 \boxed{\textsup} d3 \dispress{\textsup} \dinfty \dispress{\textsup} \dispr



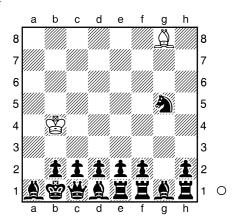
Unfortunately there's also 1 \$\dd2! \$\dd2!\$ xa7 2 \$\mathbb{Z}e1!, and now:

- a) 2...\$\delta xa6 3 \textcolor 8 xa5 and approximately as before.
  - b) 2...\$\ding a8 3 \quad \ding e8+ \ding a7 4 \ding c3 and as above.
- c) 2...\$\\$ 3 \quad \text{E}e8+ \text{\$\colonoming}c7 4 a7 followed by 5 a8\$\text{\$\colonoming}\$ with mate soon to follow.

I find the intended solution to this problem rather amusing. Unfortunately there is a cook, a second key move that also solves the problem. A cook is a serious flaw and usually renders the whole problem worthless. In the few cases where the cook might be of any interest, the composer might try to make a problem with multiple solutions instead, but usually you try to eliminate all unintended solutions that come up. These days computers can be used to check all problems (of reasonable length), but in the old days you had to be content with what you managed to find at the board. Hence, it is quite common for longer problems from the past to have cooks, as many alternative solutions were overlooked. Well, never mind. As an example of fun and odd positions this problem will do.

#### **Minimal Problems**

Another kind of problems that often feature unusual diagram positions are *minimal problems*. These are problems where White only has a king and one additional piece. I enjoy looking at those, since the limited number of moves to try often makes them reasonably easy to solve. Often – but not always. Here is an example from the Swedish expert on minimal problems, Rolf Uppström.



Rolf Uppström

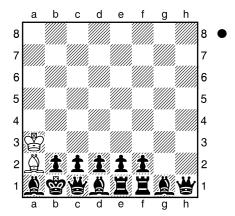
Springaren, 1999

Mate in 7 moves

Try: 1 \$\ddot a3? (threatening 2 \$\dot a2#) 1... \$\delta f7! 2 \$\dot xf7\$ stalemate. Instead...

SOLUTION:

1 **Qd5!** (threatening 2 **Pa3** and 3 **Qa2#**) 1...**Qe4** 2 **Qaxe4 Pa2** 3 **Qd5+ Pab1** 4 **Qaxh1 Pa2** 5 **Qd5+ Pab1** 6 **Pa3 h1** (or any other piece) 7 **Qa2#** (D)



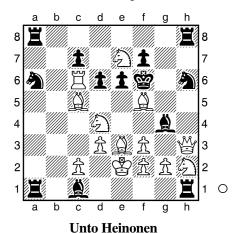
One reason why minimal problems often give rise to eye-catching positions is that while one side only has two men on the board, the other side often has a great many. As you can see, in this problem Black has almost the whole box on the board (including two promoted pawns). This is not uncommon in minimal problems, at least when it comes to direct mates, as White has such scarce material. In order to limit Black's possibilities it then becomes necessary to restrict him behind his own pieces. However, *economy* is usually something to consider even here – including pieces just to fill the board is not considered to be very neat.

Digression: Economy in chess problems means not using any more pieces than are necessary when composing the problem. In particular you don't want pieces on the board that are not used in the solution. (No, within chess composition you do not make things harder for the solver just for the difficulty *per se!*) For instance, if you can have *one* knight do the work of *two* pawns this is usually to be preferred, as the number of men on the board decreases. There can be exceptions for thematic reasons, such as using a particular kind of piece (in this case maybe there are only pawns on the board). Moreover, there are situations where you let one side have all their pieces on the board just for the sake of it. Mostly

this is in problems where the pieces are left in the usual starting matrix. A few such examples can be found in the chapter about series problems.

#### **Paradoxical Positions**

Positions that clearly don't look like a normal game of chess might always attract a certain degree of attention. One kind of position that at least I myself immediately react to are positions with too many pieces of the same kind on the board. Of course, how sensitive you are to three black knights or two light-squared bishops will depend on how experienced a chess-player you are. But, when Black, like in the following position, has a rook in each of the four corners of the board, I'll guess that everyone with only the tiniest bit of chess knowledge will react.



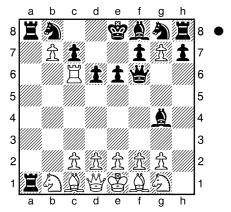
1st Prize, *The Problemist*, 1995 Proof game in 28.0 moves

If you saw this position in a real game of chess you probably would suspect that both players had been somewhat confused during time-pressure, and at least half the pieces shouldn't be there. Because there must be something wrong with the position, mustn't there? If you were also told that each black rook has moved one corner anti-clockwise, you would tend to think there was something wrong with the narrator. But this is a real chess problem of the type 'proof game' (which I talked about in a previous chapter). Proof games often have the nature of a riddle or mystery, so it is rather common that the diagram positions have a somewhat strange, original or in some other way startling appearance. So, the task

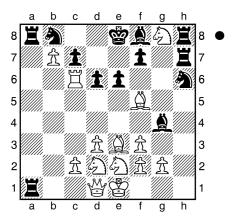
is exactly this – to prove that the position actually is possible. This is done by finding a sequence of moves that leads from the standard starting position to the given one, and for the task to be meaningful there should only be one such sequence (or a few, if this is specified and all the different paths are different and interesting).

SOLUTION:

1 h4 a5 2 h5 a4 3 h6 a3 4 hxg7 axb2 5 \( \bar{2}\) h6 bxa1\( \bar{2}\) 6 \( \bar{2}\)c6 d6 7 a4 \( \bar{2}\)g4 8 a5 e6 9 a6 \( \bar{2}\)f6 10 axb7 (D)



10...豐f3 11 exf3 h5 12 总d3 h4 13 总f5 h3 14 d3 h2 15 总e3 h1罩 16 公d2 罩1h7 17 公e2 公h6 18 g8公 (D)

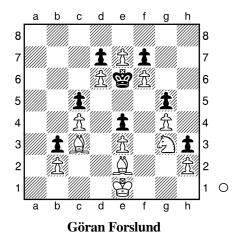


18... 全g7 19 公e7 全b2 20 公d4 全f8 21 全e2 全g7 22 營h1 全f6 23 營h3 冨h1 24 公f1 冨a1 25 公h2 公a6 26 b8全 全c1 27 全a7 冨a8 28 全c5 冨hh8

### **Depicting Positions**

The final type of visually interesting positions I'll bring up is those where the positions depict something like an image or a letter. Personally I

do not find them particularly interesting treated as problems, but they might be fun to present, and I have made a few myself for special occasions. For example, here is one of my own problems, which was created to be published in the local newspaper at Christmas. The title was something like 'Put a star on top of the Christmas tree'.



Östgöta Correspondenten, Christmas 1993 Mate in 3 moyes

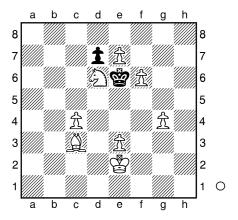
SOLUTION:

#### 1 **≜e5! \( \exists xe5 2 \( \hat{\text{\tint{\text{\te}\text{\texi}\text{\text{\texi}\text{\text{\text{\text{\text{\texi}\text{\texi}\text{\text{\texi}\texititht{\text{\texit{\text{\texi}\text{\texit{\texi{\texi{\texi{\**

The whole idea. White sacrifices piece after piece to keep Black away from the pawns.

### 

Here it's definitely the visual impression that is the point. The problem in itself offers little content (but might be adequate while waiting for the Christmas dinner). If you just wanted a correct problem, you could get rid of half the men, as in the following alternative version:



Mate in 3 moves

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