Heartbleed

“Good judgment comes from experience and experience comes from bad judgment.
Frederick P. Brooks Jr., The Mythical Man-Month: Essays on Software Engineering

This position comes from the game Tom Corbett vs Life Master Brian Wall, Round 3 of the April Denver Chess Club Tuesday night tournament, played on tax day, April 15, 2014.

In the position on the right it is **White to move**.

Answer below.

Today I have a couple things I want to mention and talk about...

- Dean Brown announced his retirement from directing chess tournaments in Colorado this week. Being a TD is a rather thankless job, and Dean has played in and directed hundreds of tournaments.

  There has been some talk of starting a "Colorado Chess Hall of Fame", and Dean would be a unanimous first ballot entry. Dean plans to focus more on playing, and getting his rating to an all time high (so watch out people!) Thanks Dean for all your hard work!

- I am going to be the tournament director for the annual New Mexico vs Colorado match on June 14. This event will take place in Trinidad, Colorado, which is pretty close to the border of NM and CO. That should be fun!

- I am also playing in Maurice Ashley's "Millionaire" tournament this October in Las Vegas. I attended his "Global Chess Challenge" in 2005 in Minnesota, and it was the best tournament that I have ever been to. The good thing about signing up for a tournament like this is that it is a very strong motivator to work on your chess game. Tony Robbins says, "People are not lazy, they simply have impotent goals..that is..goals that do not inspire them." Having a goal to play in a tournament with such huge prizes and strong competition makes me wake up in the morning thinking - I need to work on my chess game! [http://millionairechess.com/](http://millionairechess.com/)
I found this tactic from Brian's game very interesting. Brian gave me a lot of feedback about Tactics Time 1 and 2. He went through both books like it was some kind of ceremonial ritual (lighting candles, playing music, staying up all night, etc).

Brian said that he was able to get most of the problems quickly and easily, but it was the "Queen trap" type positions that gave him the most difficulty. For some reason most tactics books tend to not have a lot of "Queen Trap" types of problems (or piece traps in general). My friend Paul Grimm calls these "Queenmates" - where you basically checkmate a queen, and it cannot escape. The difficult thing about Queen traps is that you can not often use the same types of pattern recognition that you do with other tactics.

As you may know, my full time job is as a software engineer. At work this week I was doing some stuff with OpenSSL, which has been in the news a lot lately, because it contained the "Heartbleed bug" (http://en.wikipedia.org/wiki/Heartbleed). I thought this was very interesting, because the bug and the fix are relatively obvious (especially in hindsight).

I have found that this is the case with most software bugs. Normally it is something stupid and simple that caused the problem. I have fixed hundreds of bugs in my career, and most of them are silly things like a missing quotation mark, using a "=" instead of "==", a loop that goes one too short or long, not checking for "null", array index out of bounds, etc. They are obvious in hindsight, but hard to see at the time.

It is very similar with chess games. I have looked at thousands of amateur chess games, and many of them work the same way as a computer program. They do most things right, but then contain a catastrophic error (bug) in them, which ruins the whole thing.

I think both with writing code and playing chess there is an inherent difficulty - you have to figure out and think about how to make something work and not work at the same time. With a piece of software code, you have to think both how it works, and ways that it could not work.

With the heartbleed bug, the coder who wrote it probably assumed that the person would use the code the way it was intended - to ask for a buffer of characters that are the real length. They didn't envision the user asking for a buffer of characters that was much larger than they needed, which would give them access to other pieces of memory that might contain things like passwords.

When making a chess move you both have to think of how a move works - why it is good, but also try to figure out the reasons that a move is bad - how your opponent can exploit any weakness that the move creates - just like a hacker exploits a weakness in a piece of software. You have to consider your opponent's checks, captures, in between moves, ignoring your threat, and not choosing the "happy path" that you had in your mind.

Here is the complete game

[Event "April 2014 Denver Chess Club Tuesdays"]
[Site "2400 South Ash, Denver, CO"]
[Date "2014.04.15"]
[Round "3"]
[White "Corbett, Tom"]
[Black "Wall, Brian"]
[Result "0-1"]
[ECO "B21"]
[WhiteElo "1674"]
[BlackElo "2264"]
[PlyCount "112"]
[EventDate "2014.??.??"]
[WhiteTeam "12417362"]
[BlackTeam "10923344"]

Qe2 Kd7 28. g3 Ke7 29. b5 Na7 30. Ba5 Bc5 31. g4 d3 32. cxd3 Nf2+ 33. Kg2 Nxd3
Bd6 40. Qb2 Rxf4+ 41. Kg5 Rf5+ 42. Kg4 b5 43. Qg7+ Rf7 44. Qh6 b4 45. Qg5+ Ke8
46. Qb5+ Rd7 47. Qe2 Re7 48. Qb5+ Kf7 49. Qf1+ Kg7 50. Qd3 Be5 51. Qd8 Kf7 52.
Qd1 Bc3 53. Qf3+ Kg7 54. h4 h5+ 55. Kh3 e5 56. Qe4 b3 0-1

You can play through this game here: https://denverchess.com/Games/ViewPGN?id=5647

Answer:

19. b3! traps the Queen. For example 19. ...a6 20.Ra1 Qxa1 21. Rxa1

Happy Tactics!

Your Friend,

Tim Brennan

P.S.  Hope that you and your family have a beautiful Easter!