

# Stalemate in positional draw mechanisms

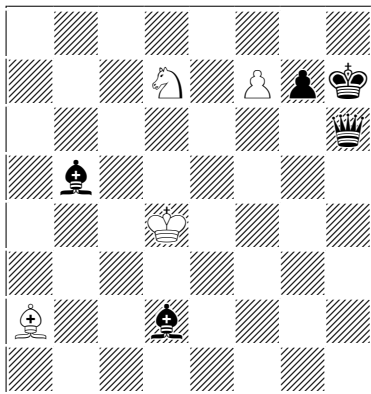
SERGEI DIDUKH

“The creation of high quality artistic productions is a challenging but rewarding task. Only he can carry it out who acquires complete command of the ‘secrets’ of technique. To this end familiarity with the theory and practical application of all the devices employed in composition is – nothing less than essential.”

V. KOROLKOV “The technology of the chess study” (*Problem*, 1968)

The motivations for the repetition of moves in the finale of a positional draw study may be such that they lead to puzzlement, or even to confusion. Full understanding calls for close examination, as under a microscope. This essay explores the content and structure of complex mechanisms that charm us with their touch of stalemate. It also hopes to shed light on some difficulties encountered in the classification of positional draw studies.

[131] **D1** F.Prokop  
2nd prize All-Union Chess Section 1925



**1.Sf8+ Kh8 2.Sg6+ Qxg6 3.f8Q+ Kh7  
4.Bb1! Bc3+**

4...Qxb1 5.Qf5+ Qxf5 stalemate.

**5.Ke3! Bd4+**

5...Qxb1 6.Qf5+ Qxf5 stalemate.

**6.Kd2 Be3+**

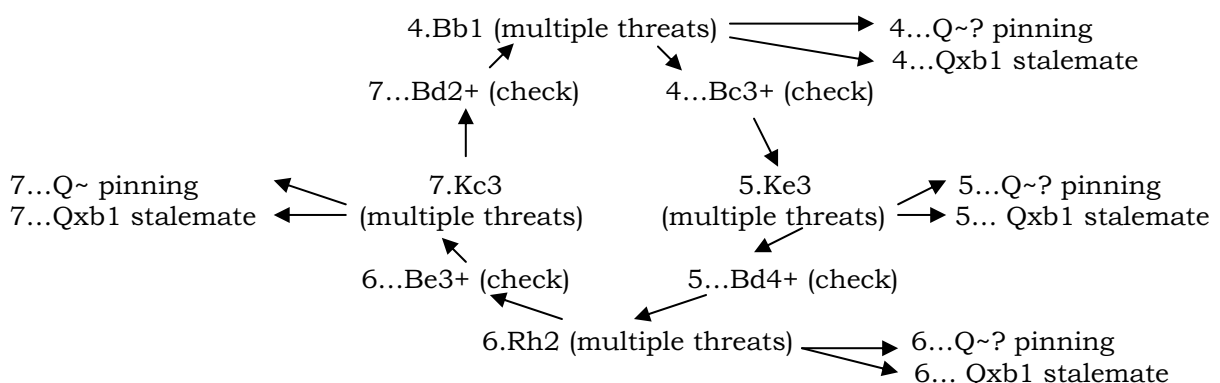
6...Qxb1 7.Qh8+ Kxh8 stalemate.

**7.Kc3 Bd2+**

7...Qxb1 8.Qxg7+ Kxg7 stalemate.

**8.Kd4** draw.

Multiple threats (moves that win or draw) prompt black replies (checks) and the perpetual motion starts. It hinges on other constructional elements as well. The pinning of the queen curtails Black’s defensive possibilities and the capture of wB leads to stalemate. It’s important to understand that stalemate becomes a threat only after black tries. It is a motif but not a threat in this construction.



I.Akobia's thorough work on the positional draw (*The positional draw*, 1995) lists the following classes:

1. Blockade and fortress.
2. Perpetual binding and pinning.
3. Perpetual attack (pursuit).
4. Perpetual check (also forced).
5. Ideas of perpetual threat.
6. Ideas of perpetual prevention.
7. Perpetual alternation.
8. Synthesis of two positional draws.

Difficulties will always arise in classifying studies that combine multiple ideas. Since some of them are less important than others, classification can't be based on cataloging a wide spectrum of possible combinations. In a perfect system the strongest (or most piquant) idea will determine the group. Undoubtedly it is stalemate that is the over-riding effect in the mechanism of D1. That's why the omission of a **perpetual stalemate** class in Akobia's list of eight leads to a mis-classification: the stalemate element is ignored, which is unacceptable.

Complex mechanisms tend to acquire theme names highlighting the most significant point(s). So, it's not surprising at all that F.Prokop gave the name **perpetual stalemate** to this theme.

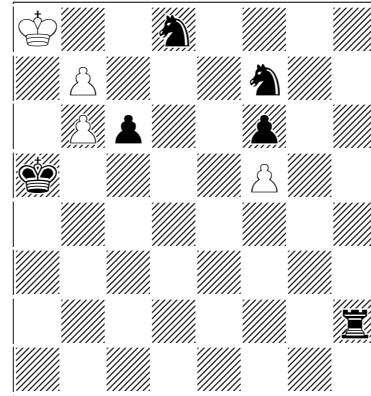
*I am certain that the classification of chess studies should be based on the relevant moments in **White** play.* This is necessary so as to handle dubious or borderline cases. Black play is often deeply subtle too, with its own tactical picture. This can be mentioned in the full exposition but may legitimately be overlooked in the general classification. The 'forced perpetual' and 'perpetual prevention' groups should include final positions where only black ideas are well discernible.

Perpetual stalemate motif is a powerful weapon in White's arsenal. In D2 it hangs

over Black like a sword of Damocles. Stalemate appears immediately after wQ is captured. We have a complete 'knight wheel' and six different stalemates.

[132] **D2** S.Didukh

1st honourable mention P.Benko-75JT 2004



a8a5 0306.32 4/6 Draw

**1.b8Q Rh8! 2.Qa7+!**

2.Ka7? c5 3.Qc8 (3.Qg3 Sc6+ 4.Kb7 fSe5!) Sd6! 4.Qa6+ Kb4 wins.

**2...Kb5 3.b7!**

3.Qa3? Kxb6 4.Qb4+ Kc7 5.Qe7+ Kc8 6.Qxf6 Re8 wins.

**3...Sxb7+ 4.Kxb7 Sd8+**

4...Sd6+ 5.Kc7 Rh7+ 6.Kd8! Rxa7 stalemate.

**5.Kc7!**

5.Kc8? Se6+! 6.Kd7 Rh7+ 7.Ke8 Rxa7 wins.

**5...Rh7+ 6.Kd6! Sb7+ [6...Rxa7 stalemate]**

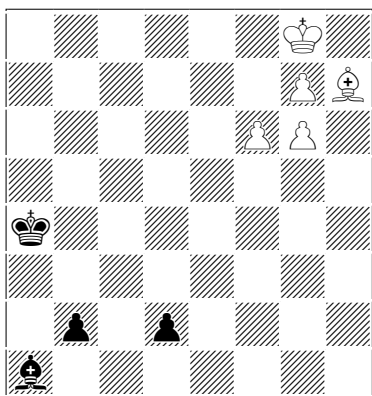
**7.Ke6 Sc5+ 8.Kd6! Se4+**

8...Rxa7 stalemate, or 8...Rd7+ 9.Qxd7 Sxd7 10.Kxd7 c5 11.Ke6 c4 12.Kxf6 c3 13.Kg7 c2 14.f6 c1Q 15.f7, with stalemate in the corner.

**9.Ke6 Sg5+ [9...Rxa7 stalemate] 10.Kd6! Sf7+ [10...Rxa7 stalemate] 11.Ke6! [Ke7? Sh6+;] Sd8+ 12.Kd6!** draw.

In 1935 G.Kasparyan found the possibility to add a pinned white piece to the stalemate picture. He called his discovery **perpetual pin**. I suggest 'perpetual self-pinning' so as to avoid any confusions.

[133] **D3** G.Kasparyan  
3rd prize *Shakhmaty v SSSR* 1936



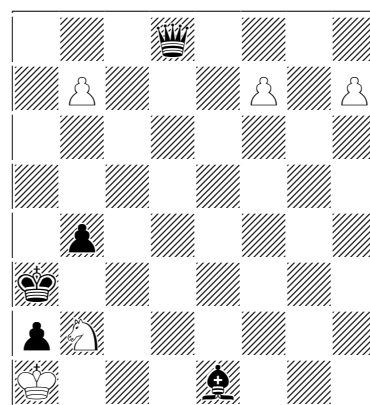
g8a4 0040.32 5/4 Draw

- 1.Kh8 b1Q 2.g8Q Bxf6+
- 2...d1Q 3.Qa8+ Kb4 4.g7 draw.
- 3.g7 Bxg7+ 4.Qxg7 Qb8+ 5.Bg8 Qh2+
- 5...d1Q 6.Qd7+! Qxd7 stalemate.
- 6.Bh7 Qb8+
- 6...d1Q 7.Qg4+! Qxg4 stalemate.
- 7.Bg8 draw.

In D4 L.Katsnelson shows a marvellous dance of unprotected queens, which continues into the final position. Black doesn't take perpetual check here. He quietly pins wQ to f1. It's not enough for a win as she always has a safe retreat to d3 or e2 – a drawing move without a distinct threat.

*Tactical motifs are determining features in mechanisms with prosaic or empty threat(s).*

[134] **D4** L.Katsnelson  
2nd place USSR team championship 1979

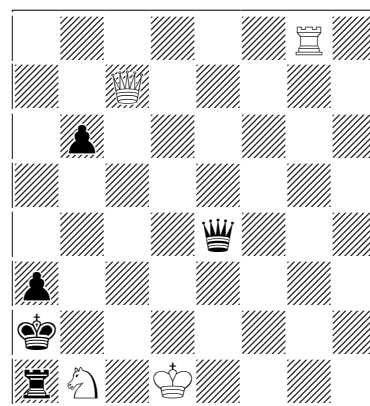


a1a3 3031.32 5/5 Draw

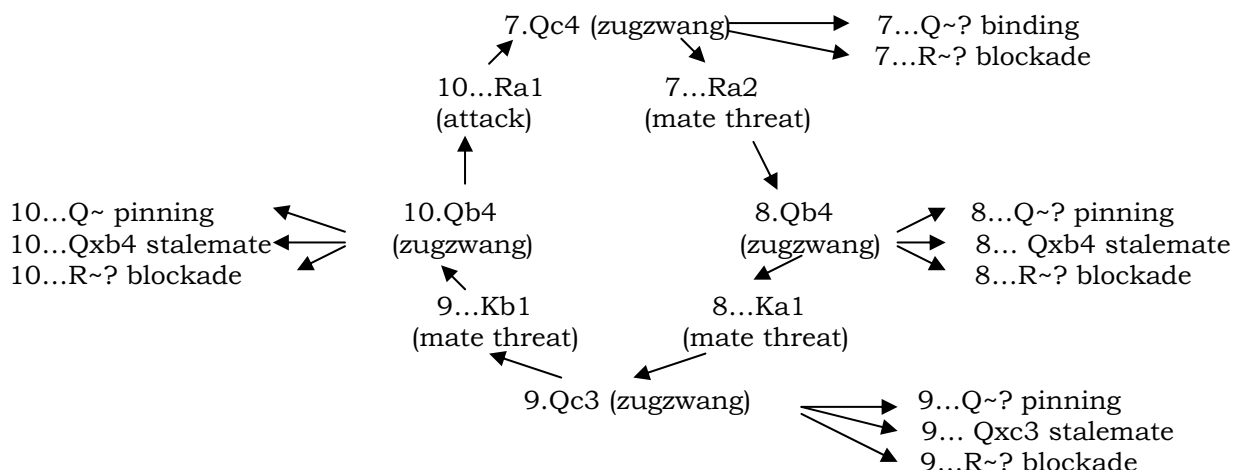
- 1.b8Q! [f8Q? Bc3:] Qxb8 2.f8Q Qxf8
- 3.h8Q Bc3 4.Qf6! Qd6 5.Qd4! Qa6 6.Qd3!
- Qb5 7.Qe2! Qc4 8.Qd3 Qb5 9.Qe2 draw.

The structure of D5 is different: the core moves make no threat but Black is forever in zugzwang.

[135] **D5** D.Gurgenidze  
1st prize *Problem* 1972



d1a2 4401.02 4/5 Draw



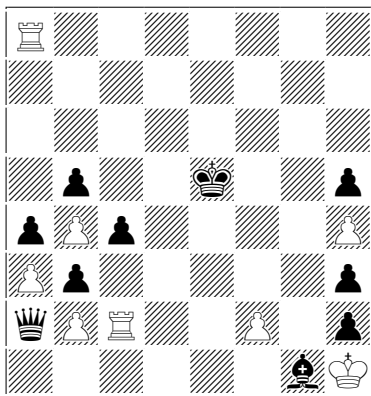
1.Qf7+ Kb2 2.Rg2+! Qxg2 3.Qf2+! Kb3 4.Qxb6+ Ka2 5.Qe6+ Kxb1 6.Qb3+ Qb2 7.Qc4! Ra2 8.Qb4! Ka1 [8...Qxb4 stalemate] 9.Qc3 Kb1 [9...Qxc3 stalemate] 10.Qb4 Ra1 11.Qc4 draw.

This construction is truly an “apple of discord”. Some commentators call it ‘perpetual avoidance of checkmate’ and place the study in the ‘perpetual prevention’ category. Others are impressed by pinning motifs and send D5 to the corresponding group. Somebody else may assert it’s a case of blockade though only black pieces impede bR’s moves and the idea of blockade is unclear. My statement that it’s an example of ‘perpetual stalemate’ mustn’t necessarily complicate the situation. Stalemate motifs give the study particular flavour and can be considered as more important than others. The presence of zugzwang in the centre of the construction is also a nice point. However, the fact that we see all the other ideas before identifying its presence is eloquent enough.

*Tactical motifs are determining features in mechanisms with mutual zugzwang.*

‘Perpetual stalemate’ group is rich in sophisticated and witty compositions. D6 alternates checks with zugzwang positions. This time it’s wR that pins bQ and stubbornly refuses to capture it. Besides, the study satisfies all the requirements of ‘perpetual self-pinning’.

[136] **D6** N.Kralin  
1st prize *F.Bondarenko JT* 1975



h1e5 3230.57 8/10 Draw

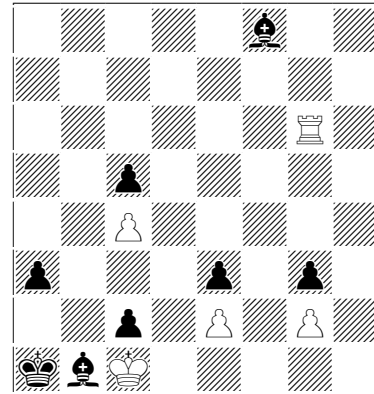
1.Re2+ Kf6 2.Rf8+ Kg7 3.Rf3!  
3.Rf4? Qb1 4.Re7+ Kh6 5.Re6+ Qg6 6.Rxg6+ Kxg6 7.Rf3 Kh6 8.Rf6+ Kg7 9.Rf3

Kg6 zz 10.Rg3+ Kf5 11.Rxh3 Bxf2 12.Rf3+ Ke4 13.Rxf2 c3! 14.bxc3 Kd3 wins.

3...Qb1 4.Re7+ Kg8 5.Re8+ Kh7 6.Re7+ Kh6 7.Re6+! Qg6 8.Rc6! Kh7 [8...Qxc6 stalemate] 9.Rc7+ Qg7 10.Rb7! Kh8 11.Rb8+ Qg8 12.Ra8! Kh7 13.Ra7+ Qg7 14.Rb7 Kh6 15.Rb6+ Qg6 16.Rc6! draw.

In 1938 G.Kasparyan discovered a rare theme of **passive domination**. Somehow these two words fully describe the intricate blend of ideas in D7. ‘Passive’ stands for the absence of a threat (wR doesn’t attack bB); and the idea of domination comprises stalemate and blockade motifs.

[137] **D7** G.Kasparyan  
3rd prize *Shakhmaty v SSSR* 1962



c1a1 0160.35 5/8 Draw

1.Rg7

1.Ra6? a2 2.Rg6 Be7 3.Rd6 Bh4 4.Rf6 Bg5 5.Rd6 Bf4 wins.

1...a2

1...Ka2 2.Rb7 Bd6 3.Rb3 Be5 4.Rxa3+ Kxa3 stalemate.

1...Ba2 2.Ra7 Bxc4 3.Rxa3+ Ba2 4.Kxc2 c4 5.Ra7 draw.

2.Rh7!

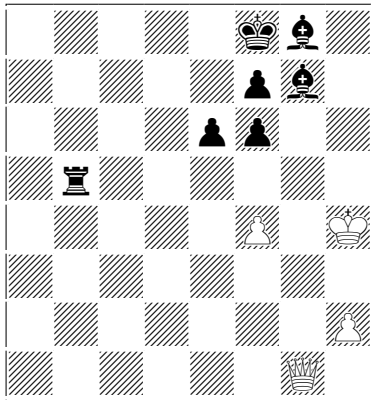
2.Rd7? Bh6 3.Rg7 Bf4 4.Rg5 Bc7 wins.

2...Bd6 3.Re7! Bf4 [Bb8; Rc7] 4.Re5 Bh6 5.Rg5 Bf8 6.Rg7 Bd6 7.Re7 draw.

This same year V.Smyslov introduced the new term **bogging down**. This theme refers to a badly placed black piece that can’t get out of the “swamp” because of stalemate and blockade that is organized by wK. The usual prisoner is bR. D8 by V.Yakimchik shows that the

thematic piece can be bB as well. The solitary wK blockades two black men.

[138] **D8** V.Yakimchik  
1st prize *Shakhmatnaya Moskva* 1966



h4f8 1360.23 4/7 Draw

**1.Qa1 Bh8 2.Qa3+!**

2.Qa8+? Kg7 3.Qg2+ Kh7 4.Qc2+ f5 wins.

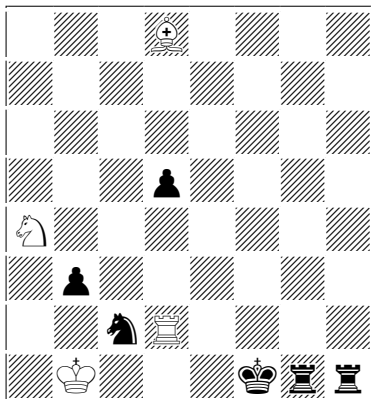
**2...Kg7 3.Qg3+ Kh7 4.Qd3+ Rf5 5.Qxf5+! exf5 6.Kh5** (threatens 7.h4 with stalemate) **Kg7 7.h4 Kf8 8.Kh6 Bg7+** [stalemate motif Ke7; h5!] **9.Kh5 Bh8 10.Kh6 Ke7**

10...Bh7 11.Kxh7 Bg7 12.h5 Bh6 13.Kxh6 Kg8, stalemate to wK.

**11.h5 Ke6** stalemate.

In D9 we find binding instead of blockade. The mutual zugzwang in the mechanism appears in its entire beauty thanks to a thematic try.

[139] **D9** V.Kovalenko  
1st prize *Pat a Mat* 1991-1992



b1f1 0714.02 4/6 Draw

**1.Se3+ Ke1 2.Ba5 d4 3.Rg2+**

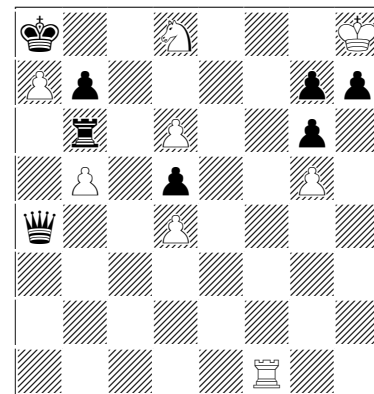
Thematic try 3.Rh2+ Sc3+ 4.Bxc3+ dxc3 5.Sc2+ bxc2+ 6.Kc1 Kf1, White is in zugzwang!

**3...Sc3+ 4.Bxc3+ dxc3 5.Sc2+ Kf1 6.Se3+ Ke1 7.Sc2+ bxc2+ 8.Kc1 Kf1 9.Rh2 Ke1 10.Rg2 Rf1 11.Rh2 zz Rhg1 12.Rg2 Rh1 13.Rh2 Rfg1 14.Rg2 Kf1 15.Rh2** draw.

D10 combines pins and binds. The comparison of two stalemate pictures brings about an exquisite kaleidoscopic effect: bQ perpetually swaps with bR the guard of g6 and g7.

bPh7 is added to the original version because after 1.d7 Rd6 2.b6! Qxd7 3.Rf8 Qe7 4.Se6+ Qxf8+ 5.Sxf8 Rxb6 6.Kxg7, a win for Black is very problematical.

[140] **D10** I.Krikheli  
3rd prize *Merani* 1970

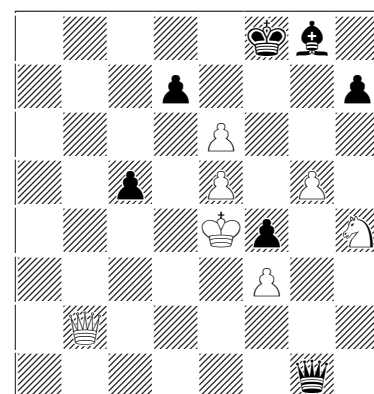


h8a8 3401.55 8/8 Draw

**1.Sc6! Rxc6** [bxc6; d7] **2.d7 Rd6 3.b6 Qxd7 4.Rf8+ Qd8 5.Kh7! Rd7** [5...Qxf8 stalemate] **6.Re8! Rd6** [6...Qxe8 stalemate] **7.Rf8!** draw.

In D11 I used blockade combined with pin to spread the stalemate web over the whole chessboard. The game-like starting position masks the unexpected finale.

[141] **D11** S.Didukh  
*Suomen Tehtäväniekat* 2005



e4f8 4031.44 7/7 BTM, Draw

**1...Qe1+!**

1...Qe3+ 2.Kf5 Bxe6+ 3.Kf6 Qb3 4.Qxb3 Bxb3 5.g6 draw.

1...dxe6 2.Kxf4 Kg7 3.Qd2 Bf7 4.Qe3 Qh2+ 5.Kg4 c4 6.f4 Qc2 7.f5 draws.

**2.Kf5!**

2.Kd5? Bxe6+ 3.Kd6 c4 wins.

**2...dxe6+**

An interesting Q-sac variation is 2...Bxe6+ 3.Kf6 Qb4 4.g6!! (4.Qa1? Qb8 5.Qa5 c4 6.Qc5+ Kg8 7.Qe7 Qf8+ 8.Qxf8+ Kxf8 9.Sg2 c3 10.Se1 Bg4!) Qxb2 5.gxh7 Qxe5+ 6.Kxe5 Kg7 7.Sg6 draw.

No victory after 2...Ke7 3.Sg2 Bxe6+ 4.Kxf4 Qb4+ 5.Qxb4 cxb4 6.Se3! d5 7.exd6+ Kxd6 8.Ke4 b3 9.Sd1 Bd5+ 10.Ke3 Bc6 11.f4 Kd5 12.Sc3+ Kc4 13.Sb1 b2 14.f5.

**3.Kf6 Qb4 4.Sg6+!! hxg6 5.Qb1! Bh7** (5...Qxb1 stalemate) **6.Qb3!** (The threat 7.Qxe6 is too prosaic to be called ‘attack’) **Bg8** (6...Qxb3 stalemate) **7.Qb1!** draw.

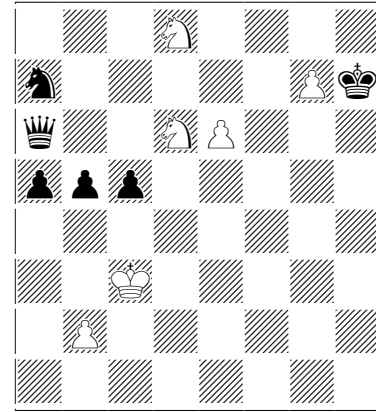
To my mind stalemate motifs sound louder than other ideas in D1–D11. That’s why I place these studies in one separate class.

The study by M.Liburkin has an evident threat of promotion and belongs to the group of **perpetual threat**.

*Tactical motifs are not determining features in mechanisms with a distinct threat.*

[142] **D12** M.Liburkin

1st prize *Dagestan Sports Committee* 1950



c3h7 3005.33 6/6 Draw

**1.e7 b4+** [Qxd6; g8Q+] **2.Kb3 a4+** 2...Qd3+ 3.Ka4 Qd1+ 4.Kxa5 draw.

**3.Ka2 b3+ 4.Ka3 Sb5+ 5.Sxb5 Qxb5 6.Sc6! Qe2**

6...Qxc6 7.g8Q+ Kxg8 8.e8Q+ Qxe8 stalemate.

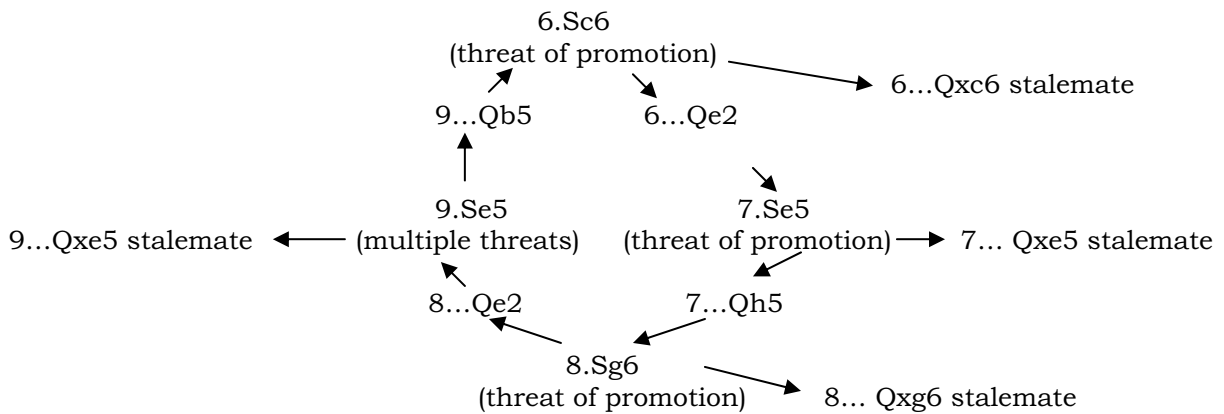
**7.Se5 Qh5**

7...Qxe5 8.g8Q+ Kxg8 9.e8Q+ Qxe8 stalemate.

**8.Sg6!**

8.Sf7? Qg4 9.g8Q+ Qxg8 10.Sd6 Qb8 wins.

**8...Qe2 9.Se5 Qb5 10.Sc6** draw.

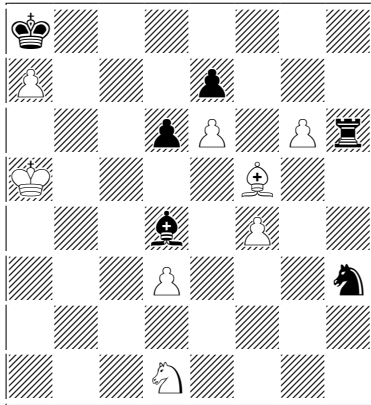


In D13 V.Bron brought together a variety of tactical motifs: pinning of the knight, binding of the rook, blockade of the bishop and stale-

mate. However, the presence of attack in the core of the mechanism automatically places it in the category of **perpetual attack**.

[143] **D13** V.Bron

11th place II USSR individual champ. 1948



a5a8 0344.52 8/6 Draw

**1.Ka6 Sxf4 2.Se3 d5**

2...Rh5 3.Be4+ d5 4.Sxd5 Sxd5 5.g7, transposes.

**3.Sxd5! Sxd5 4.Be4 Rh5 5.g7! Bxg7 6.d4! Bf6**

6...Bxd4 7.Bxd5+ Rxd5 stalemate.

**7.Bf3! Rf5**

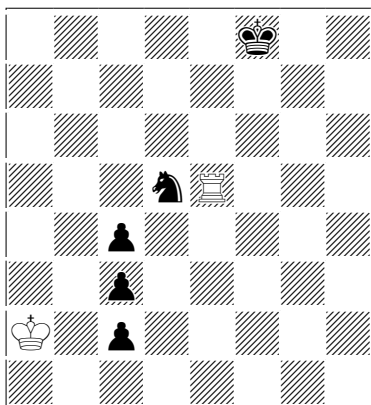
7...Bxd4 8.Bxd5+! Rxd5 stalemate.

**8.Be4! Rh5 9.Bf3 Rg5 10.Bh1(Be4) draw.**

An attentive reader understands that judges' claims of the presence of perpetual threat of stalemate in some of these studies are erroneous. We should rather ask ourselves if it exists at all? I.Akobian could find no examples and believes achieving this theme to be impossible. Indeed, in most cases it is mistaken with perpetual alternation.

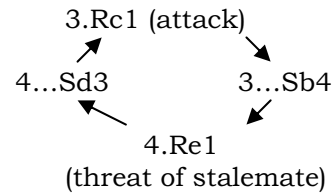
[144] **D14** N.Popkov

1st prize *Vecherny Novosibirsk* 1981



a2f8 0103.03 2/5 Draw

**1.Re1 Sb4+ 2.Ka1! Sd3 3.Rc1 Sb4 4.Re1!**  
[Rf1+? Ke7] **Sd3 5.Rc1 draw.**



There's only one threat of stalemate in the construction and it alternates with the attack on the pawn. Certainly it has the quality of perpetuity because it is present in the "wheel" and reappears after its complete rotation. Even so, *the term perpetual threat should be used only when we have at least two threats of the same nature.* Is it possible to combine two perpetual stalemate threats?

The enormous difficulties are obvious:

1. White has to be considerably behind on material, if not, more powerful threats will come up. Compensation can be found in the passivity of black pieces (blockade, pinning, binding) and in White's hidden potential (a pawn about to promote).

2. Black's reply that thwarts the impending stalemate mustn't radically improve Black's position. White must have adequate resources to cope with it. So, the play needs to be delicate.

3. It seems impossible to juggle with two short threats of stalemate in a single move. White has more freedom and possibilities with a two/three-move threat.

In V. Korolkov's study D15 the king is already in a stalemate situation after his every move. However, it's not a threat, it's a stalemate motif. The study should be incorporated in the missing 'perpetual stalemate' group.

**1.a7**

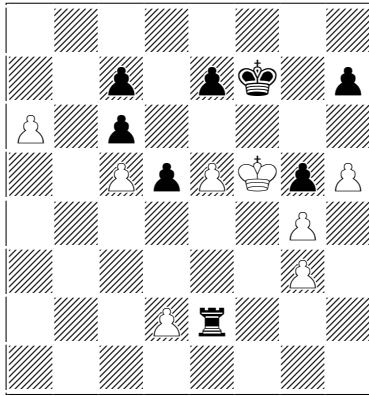
1.e6+? Kg7 2.a7 Rf2+ wins.

**1...h6 2.e6+ Rxe6 3.a8Q Re2 4.Qc8 e6+ 5.Qxe6+ Rxe6 6.d4! Rf6+**

6...Rd6 7.cxd6 cxd6 stalemate.

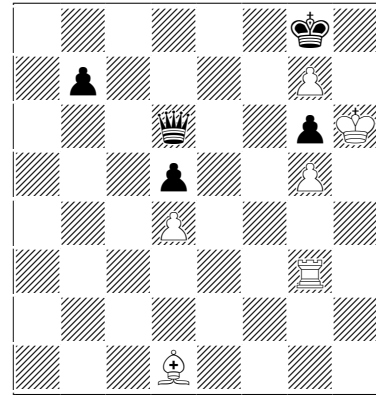
**7.Ke5 Re6+ [7...Rf1 stalemate] 8.Kf5 draw.**

[145] **D15** V.Korolkov  
3rd prize *Trud* 1950



f5f7 0300.76 8/8 Draw

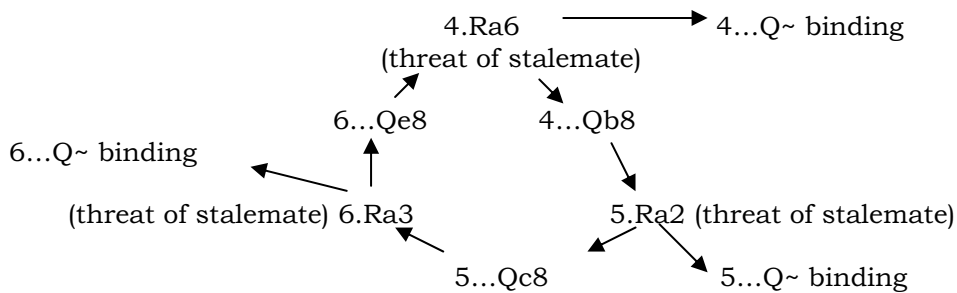
[146] **D16** G.Nadareishvili  
*New Statesman* 1970



h6g8 3110.33 6/5 Draw

It was until 1970 that G.Nadareishvili succeeded in achieving the necessary refinement of play against major Black advantage in force to express the **perpetual threat of stalemate**. Note that he uses the bind technique and the potential of wPg7.

**1.Bg4 Qe7 2.Be6+! Qxe6 3.Ra3 [Rf3? Qe7;] Qe8 4.Ra6!** (The only threat is Re6-e8+ with stalemate) **Qb8 5.Ra2!** (Threatens 6.Re2-e8+) **Qc8 6.Ra3! Qe8 7.Ra6** draw.

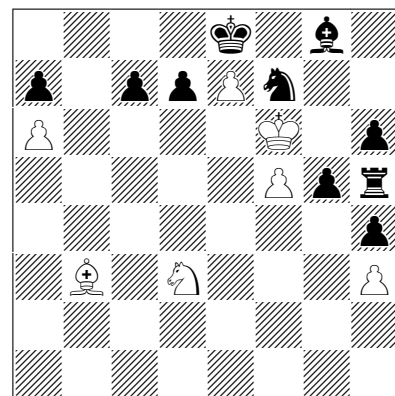


It seems that this wonderful study didn't receive any award. I do not know the reasons of this. The lack of outer dynamism is hardly avoidable when treating a complex theme of perpetual threat. Unfortunately the richness of motifs doesn't lie on the surface. So, if the judge doesn't take a deep plunge, he fails to see the magnificence of the composer's idea.

The absence of any award urges me to remark that we need to be aware that the lack of dynamism is hardly avoidable when treating a complex theme of perpetual threat. The intensity of the struggle makes up for it.

In my study two White pieces threaten to commit hara-kiri for stalemate.

[147] **D17** S.Didukh  
2nd honourable mention *Nona JT* 2005



f6e8 0344.46 7/10 Draw

White is a rook and two pawns down. Any solver would start thinking about mounting a



desperate attack. Indeed Sd3-c5-e6-c7 looks appealing. 1.Sc5? g4! 2.hxg4 Rg5? 3.Se6! and White mates, but after 2...Se5! 3.Bxg8 Sxg4+, Black wins.

The expert eye observes that the black pieces are effectively paralyzed. The only sensible move is 1...g4. White can't prevent it but he has time to move his knight to e4 so as to threaten with stalemate that becomes visible as soon as bR moves to g5 and with exquisite generosity deprives wK of the retreat squares g6 and g7. It's surprising that the path to e4 goes via f2 and not c5. The explanation lies in 2...Se5!

**1.Sf2! g4**

1...Sd6 2.Bxg8 g4 3.hxg4 Rg5 4.Bh7 Sc8 5.Bg6+ Rxg6+ 6.Kxg6 Sxe7+ 7.Kg7 draws.

**2.hxg4 Rg5**

2...Se5 3.Bxg8 Rg5 (3...Sxg4? – that's why 1.Sf2!) 4.Bb3 Rxg4 5.Bd1! Rg5 6.Se4 Rxf5+! 7.Kxf5 Sc6 8. Kg4 Kxe7 9.Sc3 Sb4 10.Sb5! Sxa6 11.Sxa7 draws.

**3.Se4** Threat of stalemate in 2 moves: 4.Bxf7+ Bxf7 5.Sd6+ cxd6.

**3...Sd8!** Excellent reply! **4.Ba4!** Threat of stalemate in 3 moves: 5.Sd6+! cxd6 6.Bxd7+ Kxd7 7.edQ (e8Q) KxQ.

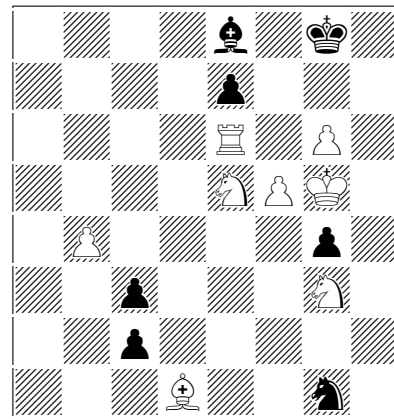
**4...Sf7 5.Bb3!** Perpetual threat of stalemate **5...Rxf5+**

Another possibility to prevent stalemate is 5...h5 6.Sxg5! Sxg5 7.Bxg8 Se4+ 8.Kg7! Kxe7 9.Bd5! Sf6 10.g5! Se8+ 11.Kg6, after a couple of precise moves White reached a drawn endgame, for example 11...h3 12.f6+ Kf8 13.Kxh5 c5 14.Kg4 h2 15.Bf3 c4 16.Kf4! c3 17.Ke3 d5 18.Bxd5.

**6.gxf5 Sg5 7.Sxg5! Bxb3 8.Sh3! Bc4 9.Sf4! Bf7 10.Sh3** – another positional draw based on the binding of three black pieces: black pawns c7 and d7 can't weaken d6 and c6, and the black bishop has to keep control over h5 and d5.

**Perpetual threat of stalemate with self-pinning** is not something of an impossible dream.

[148] **D18** S.Didukh  
G.Kasparian-95MT 2005



g5g8 0165.34 7/8 draw

**1.Sd3 Sh3+ 2.Kh6!**

2.Kh4? Sf4 3.Sc1 Sxe6 4.fxe6 Bc7 wins.

**2...Sf4! 3.Sxf4 c1Q 4.gSh5 Ba4** (threatened 5.Sf6+) **5.b5! Bxb5** (Qh1; f6!) **6.g7** The threat of stalemate in two.

**6...Qc2**

6...c2 7.Sf6+! exf6 8.Re8+! Bxe8, with a pinned knight.

6...Qxf4+ 7.Sxf4 c2 8.Re1 Ba5 9.f6! Bxe1 (exf6; Sd5) 10.f7+ Kxf7 11.Kh7 draws.

**7.Sd5!** Intending to sacrifice all three pieces for stalemate.

**7...Qd2+**

7...Qxf5 8.hSf6+ exf6 9.Re8+ Bxe8 10.Se7+ Kf7 11.Sxf5 Bd7 12.Se7 Bxe7 13.Kh7 Ke6 14.g8Q+ Ke5 15.Qf7 Bf5+ 16.Kg7 Kd6 17.Qc4 c2 18.Kf7 draws.

No progress after 7...Kf7 8.Rg6 Kg8 9.Re6.

**8.hSf4!** Threatening to stalemate himself with another knight pinned.

8.dSf4? Qd7! 9.Sd5 Qxe6+ wins.

**8...Qh2+ 9.Sh5 Qd2+ 10.hSf4 Qd4 11.Sh5! c2**, a firework of sacrifices starts **12.hSf6+! exf6 13.Re8+! Bxe8 14.Se7+! Kf7 15.g8Q+ Kxe7 16.Qe6+ Kf8 17.Qg8+! Kxg8** stalemate.

I don't know of any other study with the perpetual threat of stalemate except for these three. Do you?