## Chapter 16 Composing a Record Problem

## Seven Promotions in Series-helpmate

16.1 After a wide-ranging survey of a great task, I turn in this chapter to a small-scale account of my own composition in 1978 of a record problem in the field of pawn promotion, the first series-mover with seven promotions. My aim is to show some of the working methods involved in achieving a chess-problem task and, more important, how greater things may follow it.
16.2 I had already been interested for some years in the series-helpmate records for the maximum number of promotions to the same Black piece. These, as shown in 14.15, included six promotions to BB (BBBBBB) in 824*. In July 1977 the elegant 849* appeared with a different pattern of six promotions (BQQQSR) and only one capture of a WP. This led me to look in The Serieshelpmate by John Rice and Anthony Dickins (1971) where I found 850, the pioneer example of six promotions (QRSQBB). I spent some time trying to develop a sevenpromotion problem out of these three matrices, but without success. So I published all three in a short article in the British Chess Magazine of March 1978, offering a prize for the achievement of seven promotions by the end of August. In the event there was no entry of any merit, but the article led John Rice to send me 851, a fourth example of six promotions (BBRRRR).

849*) B. Lindgren
The Problemist, 1977

1.Pa1=B 3.Bd8 4.Sf6 7.Pg2 8.Ph1=Q 10.Qf7 15.Ph1=Q 17.hQf8 22.Ph1=Q 23.Qh2 24.Pg1=S 25.Sxe2 26.Sf4 28.Pe1=R 29.Re8 31.Ke7 32.Se6 33.Qd6+ Pxd6

SER.H\#33


SER.H\#33
851) H. M. Lommer

Stella Polaris, 1973
1.Pb1=B 3.Be6 5.Pa1=B 8.Bxh2 9.Bf4 11.Ph1=R 13.hRg4 17.Ph1=R 19.hRg5 24.Ph1=R 26.hRf6

SER.H\#33
1.Ph1=Q 2.Qxh4 3.Qg5 7.Ph1=R 9.Rxg6 14.Ph1=S 16.Sxe2 17.Sf4 19.Pe1=Q 20.Qxa5 21.Qxa6 22.aQf6 27.Pa1=B 29.Be5 31.Pb1=B 33.Be6 dPxe4
 31.Ph1=R 32.hRh6 33.hRg6 Pe4
16.3 I felt at once that the matrix of $\mathbf{8 5 1}$, itself derived from 823*, offered the best hope of extension to seven promotions. I thought I had achieved the task in April with 852(a) (sh\#39, 8/7p/2Kp3p/2p2k1p/2p2P1P/2PP3p/p3P2P/8: 1.Pa1=B $6 . \operatorname{Pc} 1=\mathrm{Q} 12 . \mathrm{Pc} 1=\mathrm{B} 17 . \mathrm{Ph} 1=\mathrm{R} 23 . \mathrm{Ph} 1=\mathrm{R} 30 . \mathrm{Ph} 1=\mathrm{R} 37 . \mathrm{Ph} 1=\mathrm{R}$ ), but Chris Feather, the then editor of the British Chess Magazine's problem column, and John Rice soon cooked it irreparably by using the dP to promote to BS on cl. Further efforts suggested no way of getting a sound problem with all seven promoted pieces being used to self-block the BK: at least one of the self-blocking pieces would have to be on the board from the outset, like the BS in 849*. 849* also gave me the idea of another way to employ a promoted piece which I had not seen used before. This was that a promoted BR or BS might lock itself in a Black battery, as on b7 in the set position of 849*, and that this could be made the prerequisite for releasing the BK from a trap in the NW corner and enabling it to travel to its mating square. This device helped
me in early May to produce another near-sound example of seven promotions in 852(b) (sh\#45, b7/1S2p2p/k1K4p/7p/1p5P/ pP1P3p/P2pP2P/8: 1.Pd1=B 6.Pb1=R 17.Pa1=B 23.Ph1=R 29. $\mathrm{Ph} 1=\mathrm{R} 36 . \mathrm{Ph} 1=\mathrm{R} 43 . \mathrm{Ph} 1=\mathrm{R}$ ): unfortunately there are variants in which the BB gets to f 4 in one move less while the other BB takes one move more.
16.4 After a spell of travel without my chess set, I took up the challenge again, and, being away from home on 30 June, worked on it throughout the night. I saw that there were many possibilities, depending, for instance, on whether the WK is shielded from check on the sixth rank by a promoted BB or BS on e6 or by a BP on d6 - a WP on d6 would allow a mate on the eighth rank; on whether the BK travels to f5 below the WK via e5 or above the WK via e6 or f6; and on where in the sequence the promotion of the self-locking BR or BS comes. I tried to go through all these possibilities in a logical order, but found the effort of concentration required beyond me. However, I produced some more near misses, all with stationary BP on d6, BB or BQ on the board waiting to occupy f 6 once the BK has passed over it, and at least one promotion to BB before the h-pawns could be set moving. 852(c) (sh\#41, b1k5/1S5p/2Kp3p/2p2P1p/7P/ 1P1P3p/p1p1P2P/q7: 1.Pc1=Q 7.Pc1=B 12.Ph1=R 18.Ph1=R 25.Ph1=R 32.Ph1=R 40.Pal=B) failed at the start because the promoted BQ can go to e6 via e3 as well as via c4; 852(d) (sh\#42, b1k5/1S5p/2Kp3p/5P1p/2p4P/1pbP3p/1Pp1P2P/8: 1.Pc1=B $6 . \operatorname{Ph} 1=\mathrm{R}$ 12.Ph1=R 19.Ph1=R 26.Ph1=R 36.Pc1=B 40.Pb1=B) failed at the end because the last promotion can also be to BQ; and 852(e) (sh\#40, b1k5/1S5p/2Kp3p/7p/1p5P/1P1P3p/ $\mathrm{ppP} 1 \mathrm{P} 2 \mathrm{P} / \mathrm{q} 7: 1 . \mathrm{Pb} 1=\mathrm{Q} 6 . \mathrm{Pc} 1=\mathrm{B} 11 . \mathrm{Ph} 1=\mathrm{R} 17 . \mathrm{Ph} 1=\mathrm{R} 24 . \mathrm{Ph} 1=\mathrm{R}$ 31.Ph1=R 39.Pal=B) failed because, among other reasons, the self-locking BR can go by b1 as well as by h7 and there is no sound way to block the b-file.
16.5 I then remembered how 852(a) had been cooked, and realized that the BP on d6 could make one of the promotions on cl if its timing could be controlled by the need to unpin it with a promoted BB or BS on e6; the eighth BP would have to sit on c7 to prevent mates by the WP that would be needed on c5. This led me to my first sound setting, 852(f) (sh\#42, b1k5/1Sp5/ 2Kp3p/2P2P1p/2p2P1P/1pqP3p/pP2P2P/8: 1.Pal=R 11.Pc1=B $15 . \mathrm{Pb} 1=\mathrm{B}$ 22.Pc1=B 27.Ph1=R 33.Ph1=R 40.Ph1=R), but the position is illegal, the WPs having made one capture too many. A second sound setting, 852 (g) (sh\#45, b1k5/1Sp5/p1Kp3p/

P1P2P1p/5P1P/1p1P3p/pb2P2P/8: 1.Pa1=Q 8.Pal=R 18.Pb1=B 25.PC1=B 30.Ph1=R 36.Ph1=R 43.Ph1=R), was also illegal, the BPs having made one capture too many. It was clear that the number of WPs must be reduced, and one way was to go back to having four BPs on the h-file, I tried promoting these first, and quickly produced a near-sound six-promotion setting with BQ and BB already on the board in 852(h) (sh\#41, b7/1Sp4p/k1Kp1q1p/2P4p/7P/1p1P4/1b2P2p/8: 1.Ph1=R 7.Ph1=R 14.Ph1=R 21.Ph1=R 33.Pb1=B 40.Pc1=B).
16.6 By now it was morning, and I got up - feeling alternately frustrated and hopeful - to go about the day's business. But the settings were so familiar to me that I was able to work on them in my head. I wondered if I could adapt 852(h) so as to get three promotions after the self-lock, e.g. by having the BK travel above the WK via f6. It must not block the self-locking BR's path along the eighth rank, but if it was placed on a7 it would still have a shorter travel above the WK, and it would not be able to start until the BR had passed over b8. Next I had to make sure that the BR could not reach b 7 in three moves via the a-file or b -file, and this I could do by adding WPs on a3 and b5. Would that give me too many pawn-captures? Not if the first promotion was to BS on f 1 : this would just make the setting legal, without a pawn capture by either side to spare. And so, by the time I had arrived home that afternoon, 852* was finished and the task was done (SRRRBBB). After so much abortive effort, the final achievement had some good features that I had not originally envisaged: all three types of underpromotion, the self-lock in the middle, and the unpin of the BP on d6. I was just in time to send it to John Rice and Anthony Dickins for inclusion in their second edition (1978) of The Serieshelpmate.

## 852*) C. J. Morse

The Serieshelpmate, 1978

1.Pf1=S 2.Sxh2 3.Sg4 5.Ph1=R 7.Rg5 12.Ph1=R 14.hRg6 19.Ph1=R 20.Rh8 22.Rxb7 28.Kxf5 29.Qf6 32.Pc1=B 33.Bxb2 34.Be5 36.Pb1=B 38.Be6 43.Pc1=B 44.Bf4 Pe4

SER.H\#44

## Later Developments

16.7 As so often happens, once the task was achieved, another example quickly followed. 853* is more economical than 852* and, despite the reappearance of a pinned White piece in the NW corner, has a quite different scheme. Five promoted pieces are used to self-block, a sixth shields the BK from check by the WR and the seventh is captured in the mate - an obvious device which I had completely overlooked: also two of the promoted BQs are temporarily parked on their way to their final destination, thus avoiding wrecking duals. The later 854, which has AUW and six self-blocks as well as double parking, saves two more pieces, and shows that the task can be done in a more conventional way than I had thought possible ten years earlier. In the more accommodating series-helpstalemate form, we have already seen two striking examples of seven promotions in 829* and 830*; and 855 matches them with AUW included.

## 853*) A. Atanasiević

4th Prize, Mat, 1979


SER.H\#41
1.Pg1=Q 2.Qxh2 4.Qa3 6.Pb1=Q 7.bQxb4 8.Qf8 12.Pb1=B 14.Bxh3 15.Be6 18.Ph1=Q 20.hQf6 24.Ph1=Q 25.Qh5 29.Pd1=R 30.Rd7 32.Ke7 33.hQe8 38.Ph1=R 40.Rf7 41.Qd6+ Pxd6
854) G. P. Sphicas

Prize, Ideal-Mate Review, 1988


## 855) G. P. Sphicas

Die Schwalbe, 1991


SER.H=26
16.8 Meanwhile, similar techniques were yielding seven White promotions in the related series-selfmate form, which is harder for solvers but easier for composers because the mating side can be allowed more force without introducing cooks. As so often in the series-mover field, Aleksandar Atanasiević was once again the pioneer with 856, which illustrates the point: as a serieshelpmate it would solve more shortly with the WK mated on f5. Simpler settings have followed, of which 857* is the shortest and 858* the most economical: both use five promoted pieces to selfblock, one to be captured in the mate and one to guard the BK'S field.

## 856) A. Atanasiević

3rd Prize, Mat, 1979


## 857*) B. Lindgren

## 1st Prize, Mat, 1989



SER.S\#34
1.Pe8=B 3.Bc4 5.Pf8=S 6.Sxd7 7.Sc5 9.Pd8=B 11.Bxh6 12.Be3 15.Ph8=R 16.Rxh4 17.Re4 22.Ph8=Q 23.Qxa8 24.Qd5 25.Pa8=Q 26.Qxa3 27.Qb4 32.Pa8=R 33.Ra1 34.Qc3+ Bxc3

858*) G. P. Sphicas
1st Special Prize, US Problem Bulletin, 1990

1.Pe8=Q 2.Qh5 3.Pd8=B 4.Bxf6 5.Bc3 8.Pf8=R 9.Rxf3 12.Kc4 13.Rd3 18.Pf8=B 19.Bc5 20.Bxa7 21.aBd4 23.Pa8=R 24.Rxa4 25.Rb4 30.Pa8=R 32.aRb3 37.Pa8=S 38.Qd5+ Pxd5

SER.S\#38
16.9 But a greater surprise was in store. Plainly the seriesselfmate, in addition to the advantage mentioned in the last paragraph, offers more potential employment for promoted pieces than the other series-mover forms. Not only can promoted pieces be used to guard the BK's field, but if one of them is to be captured in the mate this can more easily take place outside the WK's field, thus leaving one more square for self-blocking. Both these possibilities are brilliantly exploited in 859**, the first series-mover to achieve the theoretical maximum of 8 promotions. The economic setting, easy flow of the solution, and beautiful arrangement of the promotions in two successive AUWs make this pioneering achievement also a masterpiece. A quarter of a century later, it was matched by another wonderful task in 860**, in which the four different promotions appear successively in pairs, and the BK is completely boxed in with 8 self-blocks, 7 of them by promoted pieces. Between these two peaks came a handful of other examples, among which 861*
uses only 18 men. Meanwhile Zdravko Maslar had found a special case in series-selfstalemate form: developing the lattice of bishops in 800*, he achieved in 862* the theoretical maximum of 8 promotions to WB in as few as 23 moves, a task which he repeated two years later in a longer and more grandiose setting. Finally, another series-selfstalemate 863* includes AUW in its 8 promotions.

## 859**) B. Lindgren

1st Prize, feenschach,

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1987
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SER.S\#42
1.Pe8=S 2.Sxf6 3.Sd5 6.Pf8=Q 7.Qxf3 8.Qg2 13.Pf8=B 15.Be318. $\mathrm{Ph} 8=\mathrm{R}$ 19.Rxh4 20.Re4 25.Ph8=Q 26.Qxb8 27.Qe5 28. $\mathrm{Pb} 8=\mathrm{B} 29 . \mathrm{Bxa} 730 . \mathrm{Bc} 5$ 32. $\mathrm{Pa} 8=\mathrm{R} 33 . \mathrm{Rxa} 4$ 34.Rb4 39.Pa8=S 40.aSb6 41.Sc4 42.Qxe2+ Sxe2

860**) G. P. Sphicas
1st Prize, StrateGems, 2013


SER.S\#37

1. $\mathrm{Pd} 8=\mathrm{R}$ 2.Rd3 3.Kd4 4.Be3 7.Pg8=R 9.Re4 14.Pg8=S 15.Sxe7 16.Sd5 18.Pe8=S 19.eSxc7 20.Sxa6 22.Pc8=Q 23.Qc3 24.Sc5 27.Pa8=Q 28.Qxa4 29.aQc4 34.Pxb8=B 35.Bh2 36.Pb8=B 37.bBe5 S mates

861*) G. P. Sphicas
2nd Hon. Ment., The Problemist, 2003


SER.S\#44
1.Pxe8=S 2.Sxd6 3.Pe8=R 4.Re2 5.Se4 8.Pd8=Q 9.Qxh4 10.Qxf4 15.Ph8=R 17.hRf3 22.Ph8=B 23.Bxc3 25.Ke3 26. Bd 2 31. $\mathrm{Pb} 8=\mathrm{Q}$ 32. $\mathrm{Qxb6}$ 33.Qd4 36. $\mathrm{Pb} 8=\mathrm{Q} 38 . \mathrm{bQd} 3$ 42.Pb8=Q 43.bQb3 44.Qd1+ Sxd1

## 862*) Z. Maslar

1st Comm., feenschach, 1989 (V)


863*) G. P. Sphicas 3rd Prize, Bo Lindgren Jub. Ty., 1992


SER.S=43
1.Pb8=S 2.Sxa6 3.Sc5 6.Pa8=B 7.Bxe4 8.Bb1 13.Pe8=B 14.Bxd7 15.dBxf5 17.Pd8=R 19.Rb2 20.Sb3 21.Ba2 22.fBb1 26.Pxf8=B 27.Bxh6 28.Pf8=R 29.Rf5 30.Kc2 31.Bc1 34.Ph8=B 35.Bc3 36.3Bd2 42.Ph8=Q 43.Qc3+ Sxc3=
16.10 There may be more to be done in series-selfmate and series-selfstalemate form: for instance, efforts to show all eight promotions being used to self-block the WK have so far proved
unsound. Finally the challenge remains to show the eight promotions in the less accommodating but historically prior series-helpmate and series-helpstalemate forms.

