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The windmill

The windmill is one of the most beautiful combinations in chess. Kotov provided the definition of a windmill as ‘a forcing series of attacks with discovered check.’

The following famous game made this type of combination so well-known.

1. The windmill
2. Coordination of the pieces
3. Mating attack

Diagram 1-1

The white bishop is pinned and attacked. However, White’s surprising reply turns the tables.

1. \[ \textsf{f}6!! \]

White sacrifices his strongest piece in order to set up a windmill.

1... \[ \textsf{x}h5 \]
2. \[ \textsf{x}g7\]

Now the white bishop and rook display unbelievable coordination.

2... \[ \textsf{h}8 \]
3. \[ \textsf{xf7} \]

White sets the windmill in motion. The rook first eliminates almost all of the black pieces on the seventh rank. The only way for Black to meet the discovered checks is with king moves.

It would be bad to play 3. \[ \textsf{g}5\] \[ \textsf{h}7 \] 4. \[ \textsf{x}h5? \] (White could still go back with 4. \[ \textsf{g}7\] and continue as in the game) 4... \[ \textsf{g}6 \] 5. \[ \textsf{b}5 \] \[ \textsf{c}6 \] and Black wins a piece.

3... \[ \textsf{g}8 \] 4. \[ \textsf{g}7\] \[ \textsf{h}8 \] 5. \[ \textsf{x}b7\]

It is important that the white bishop is not under attack. Otherwise it could not participate in the windmill without being in danger.

5... \[ \textsf{g}8 \] 6. \[ \textsf{g}7\] \[ \textsf{h}8 \] 7. \[ \textsf{g}5\]

With another discovered check White wins back his queen. White could also have first taken the pawn on a7, but he did not want to unnecessarily open the a-file for the opposing rook.

7... \[ \textsf{h}7 \] 8. \[ \textsf{x}h5 \] \[ \textsf{g}6 \]

This double attack wins the piece back, but White will have a good three pawns more!

9. \[ \textsf{h}3 \] 10. \[ \textsf{x}h6\]

1–0
The attacking side exploited the power of a rook-bishop battery. It is very important to learn how to coordinate these different pieces. They complement each other very well. We have already seen some similar examples of this in Chapters 2 and 7 of *Build Up Your Chess* 1.

The windmill and other similar attacking set-ups are very dangerous and often lead not ‘only’ to a gain of material, but also directly to mate.

**Diagram 1-2**

Variation from the game

V.Smyslov – M.Euwe  
Zürich Candidates 1953

1.\(\text{\textit{\textnot{\textup{g}}}}\text{xe5}\)!
A deflecting sacrifice. Another good move is 1.\(\text{\textit{\textup{g}}}c5\)––.
1...\(\text{\textit{\textup{g}}}xe5\) 2.\(\text{\textit{\textup{g}}}xe5\) \(\text{\textit{\textup{g}}}xe5\) 3.\(\text{\textit{\textup{h}}}c6\)† \(\text{\textit{\textup{f}}}b8\) 4.\(\text{\textit{\textup{g}}}b7\)† \(\text{\textit{\textup{g}}}a8\)
A typical windmill, which even leads to mate in this case.
5.\(\text{\textit{\textup{g}}}b5\)#

**Diagram 1-3**

N.N. – W.Steinitz  
London 1869

Here is another example which confirms how strong the rook-bishop battery is.

1...\(\text{\textit{\textup{g}}}h4\)!!
A spectacular move. The threat is 2...\(\text{\textit{\textup{g}}}xg2\)† and then ...\(\text{\textit{\textup{g}}}f2\)†, as well as the simple 2...\(\text{\textit{\textup{g}}}xg3\).

2.\(\text{\textit{\textup{g}}}xh4\) \(\text{\textit{\textup{g}}}xe3\)!
The threat is 3...\(\text{\textit{\textup{g}}}f1\)#. White is left with no satisfactory defence.

3.\(\text{\textit{\textup{g}}}g6\)†
Other moves are no better:
a) 3.h3 \(\text{\textit{\textup{g}}}f1\)† 4.\(\text{\textit{\textup{g}}}h2\) \(\text{\textit{\textup{g}}}g1\)† 5.\(\text{\textit{\textup{g}}}h1\) \(\text{\textit{\textup{g}}}g3\)#.
b) 3.g3 \(\text{\textit{\textup{g}}}e2\)† 4.\(\text{\textit{\textup{g}}}h1\) \(\text{\textit{\textup{g}}}xe1\)† 5.\(\text{\textit{\textup{g}}}g2\) \(\text{\textit{\textup{g}}}g1\)† 6.\(\text{\textit{\textup{g}}}h3\) \(\text{\textit{\textup{g}}}f2\)#.
c) 3.\(\text{\not{\textit{\textup{g}}}f3}\) \(\text{\textit{\textup{g}}}xg3\)†→.

3...\(\text{\textit{\textup{g}}}xg6\) 4.g3 \(\text{\textit{\textup{g}}}e2\)† 5.\(\text{\textit{\textup{g}}}h1\) \(\text{\textit{\textup{g}}}xe1\)†
Black has a forced mate.
1. $\text{d4}!$

White begins a forcing attack.

1...$\text{exf3}$

2. $\text{xf3}$ $\text{e5}$ 3. $\text{h6}!$

4. $\text{xe2}$

4...$\text{xd5}$! would be simpler: 4...$\text{exd4}$ 5. $\text{xd4}$+–.

4...$\text{xe5}$ 5. $\text{xe5}$

White sets up his battery. There is a strong alternative in 5. $\text{xe5}$†! $\text{g8}$ 6. $\text{f4}$+–.

5...$\text{d6}$

6. $\text{g3}!!$

White prepares an elegant way to unpin. But not the immediate 6. $\text{h1}$?? on account of 6...$\text{exh6}$†+–.

6...$\text{xh6}$†

6...$\text{xg3}$ 7. $\text{xe8}$#

7. $\text{h3}!$ $\text{d6}$ 8. $\text{h1}!+$–

Black cannot avoid losing a piece.

In the test which follows, you should try to set up a windmill! Calculate only the necessary variations. Always end your variations with an evaluation. It is important to concentrate on the first few moves and also to take into account the various possible replies by your opponent.
Exercises

Ex. 1-7

Ex. 1-10

Ex. 1-8

Ex. 1-11

Ex. 1-9

Ex. 1-12
Ex. 1-1

Kreichik – Laitgeb
Vienna 1951

1...hxg5

If 1...£xg2†, then 2.£xg2 ¥xg2 3.£xg6† h7 4.£xg2#.

Ex. 1-2

L.Schmid – Muth
1950

1...gxf6†!!

1.£h6! also wins easily.

Ex. 1-3

A.Beni – Schwarzbach
Austria 1969

1...£xh3

After deflecting the black queen, White can open up the diagonals for both his bishops.

Ex. 1-4

G.Antunac – R.Hübner
Dresden 1969

1...£c7!!

(1 point)

Ex. 1-5

D. Dos Santos – M.Ginzberg
San Rafael 1992

1...£e2!

(1 point)

Ex. 1-6

B.Verlinsky – I.Rabinovich
USSR Ch, Leningrad 1925

1...£xc7†!

(1 point)

After a queen sacrifice, you must calculate your variations very carefully! Black plays 1...£xf4 2.£xg7† £h8 3.£xf7† £e5 (or even 3...£e5) and wins.

1...£xe6 2.£xg7† £h8 3.£xf7† £g8 4.£g7† £h8 5.£g8#

(another 1 point for this variation)

Ex. 1-6

B.Verlinsky – I.Rabinovich
USSR Ch, Leningrad 1925

1...£xc7†!

(1 point)

3...£a7

There is the equally good 3.£c3†+-.

3...£d6 is followed by 4.£xd6† £a7 5.£a1† £a6 6.£xa6† £b7 (or 6...£xa6 7.£f4†+-) 7.£b6† £a7 8.£c5+-.
Solutions

4. $\text{B}a1\text{\#} 5. \text{B}xa6 \text{\#} \text{B}b7 6. \text{B}eb6\text{\#} \text{c}8$
7. $\text{B}a8\text{\#} \text{d}7 8. \text{B}xd8 \text{\#} \text{xd}8 9. \text{B}d6\text{\#} \\
1–0 (another 1 point for this variation)

Ex. 1-7

Afanasjev – Koshelev
USSR 1968

1... $\text{B}xh5$! (1 point)
1... $\text{N}f5$? would be bad: 2. $\text{B}xf5 \text{B}xf5 3. $\text{B}xf5$ exf5 4.e6\text{\#}–.
2. $\text{B}xh5 \text{B}xg2\text{\#} 3. $\text{N}h1 \text{B}xg2\text{\#}$

Of course not 3... $\text{N}g8$? due to 5... $\text{B}xg2$ and Black will have to give perpetual check: 5... $\text{B}g2$ 6. $\text{h}1 \text{N}g5\text{\#}.$
4. $\text{B}g1 \text{B}g2\text{\#} 5. $\text{B}h1 \text{B}xc2\text{\#}$ (another 1 point)
6. $\text{B}g1 \text{B}g2\text{\#}$

There is an even faster win: 6... $\text{B}g8$? 7. $\text{N}f1 \text{B}g2\text{\#} 8. $\text{B}g1 \text{c}6\text{\#} 9. $\text{N}f1 \text{B}b5\text{\#} 10. $\text{B}c4 \text{B}xc4\text{\#} 11. \text{B}d3 \text{B}xd3\text{\#}.$
7. $\text{N}h1 \text{B}xb2\text{\#} 8. $\text{B}g1 \text{B}g2\text{\#}$

Here too there is a win after 8... $\text{B}g8$?!
9. $\text{N}h1 \text{B}d2\text{\#} 10. $\text{B}g1 \text{B}xd1\text{\#} 11. $\text{N}h2 \text{B}d2\text{\#} 12. $\text{B}g1$

12. $\text{B}g3$ is met by 12... $\text{B}g2\text{\#} 13. $\text{N}h4 \text{B}f5\text{\#}.$
12... $\text{B}g2\text{\#} 13. $\text{N}h1 \text{B}c2\text{\#}$

Or 13... $\text{B}f1\text{\#}.$
14. $\text{B}g1 \text{B}xc7$
0–1

Ex. 1-8

M.Taimanov – N.N.
Simultaneous 1964

1. $\text{B}xg7\text{\#}$! (1 point)

1... $\text{B}xe5$ (1 consolation point) is not so precise, as after 1... $\text{B}xf1\text{\#} 2. \text{B}xf1 \text{B}xe5$ Black has a rook, bishop and pawn for the queen and can still defend his position.
1... $\text{B}h8$
1... $\text{B}xg7 2. \text{B}xe5\text{\#}–$

2. \text{B}xe5! (another 1 point)

2... $\text{B}xc2 3. \text{B}f8\text{\#}$!

But not 3. $\text{B}xg6?? \text{B}xe5\text{–}. 3... $\text{B}xf8 4. \text{B}xg6\text{\#} 1–0$

(1 point)

Ex. 1-9

Based on the game

B.Malich – Litkiewicz

East Germany 1967

1. $\text{B}xf7$! (1 point)

1. $\text{B}xe5$ (1 consolation point) is not so strong: 1... $\text{B}xf3\text{\#} 2. \text{B}xg3 \text{N}g5 3. $\text{B}xc8 \text{B}xc8\text{\#}.$
1... $\text{B}xe2$

1... $\text{B}xh3\text{\#} 2. \text{B}xe2 \text{B}xg6\text{\#}.$ is followed by 3. $\text{B}g4 \text{B}xe4\text{\#} 4. \text{B}xe4 \text{B}xf7 5. $\text{B}xc8\text{\#}.$
2. $\text{B}xg7\text{\#} 3. \text{B}h8 3. \text{B}xe7\text{\#}$!

(1 point)

After 3. $\text{B}g8?? \text{B}h7$ White has to repeat moves by 4. $\text{B}g7?? \text{B}h8.$
3. $\text{B}xg5??$ would be bad, on account of 3... $\text{B}f6\text{–}.$
3... $\text{B}xe5 4. \text{dxe}5 \text{B}c2 5. $\text{B}b3 \text{B}xf2 6. $\text{B}c1 \text{B}xb2 7. $\text{B}c6\text{–}$

Ex. 1-10

1.Boleslavsky – A.Ufimtsev

Omsk 1944

1... $\text{B}xg2\text{\#}$! (1 point)

1... $\text{B}xa5?? 2. \text{B}xa5 \text{B}d2$ would not be so good, in view of 3. $\text{B}xg4 \text{B}xf1 4. \text{B}xf1 \text{B}xe6\text{\#} 5. $\text{B}xf1\text{\#}.$
2. $\text{B}xg2 \text{B}d2\text{–}$ (another 1 point)

Also possible is 2... $\text{B}c3\text{–}–; \text{but } 2... \text{B}xg2?? 3. $\text{B}xg2 \text{B}g5\text{\#}$ is refuted by 4. $\text{B}f3\text{\#}.$
3. $\text{B}d5$

3. $\text{B}xb6$ is met by 3... $\text{B}xg2\text{\#} 4. \text{B}h1 \text{B}xh2\text{\#} 5. $\text{B}g1 \text{B}h1\text{#}.$
Solutions

3.f3 also leads to a quick loss: 3...\textit{h}xe3†
4.h1 \textit{h}6–+. 4...\textit{x}d5 5.cxd5 \textit{xb}2–+

Ex. 1-11
The end of a study by
L.Topko
1966

1.\textit{b}2!

Preparing the battery for discovered checks.

1...\textit{f}8

The echo variation is 1...\textit{h}6 2.g3† \textit{h}7 3.g7† \textit{h}8 4.b1–+.

Ex. 1-12
V.Faibisovich – K.Lerner
USSR Ch semifinal, Alma Ata 1971

Here it is all about achieving equality.

1.\textit{x}f6!

1...\textit{x}h5 2.xg7† \textit{h}8 3.f7†!

½–½

White delivers perpetual check, naturally avoiding 3.g5†? \textit{x}f6–+.

Scoring

Maximum number of points is 23

20 points and above \rightarrow \textbf{Excellent}
16 points and above \rightarrow \textbf{Good}
12 points \rightarrow \textbf{Pass mark}

If you scored less than 12 points, we recommend that you read the chapter again and repeat the exercises which you got wrong.