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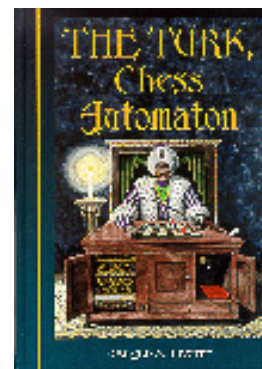
Spotlight on a Sideshow, or, Fattening the Thin Man

Taylor Kingston

The Turk, Chess Automaton, by Gerald M. Levitt, 2000
McFarland & Company, Hardcover, English Algebraic
Notation, 258 pp., \$50.00.

Automatons are one of the strange sideshows of chess history. Today, when a computer has beaten the world champion, and when grandmaster-strength programs can be bought for less than a day's pay, the notion of a machine that plays chess has lost all novelty. That was not the case when a "chess-playing machine" appeared 230 years ago, back when "high-tech" meant steam power, and the idea of semi-conductor electronics was not even dreamed of.

This book spotlights the first, and probably the best, of the "chess automatons." Its creator, Austro-Hungarian nobleman Wolfgang von Kempelen (1734-1804), was a polymath scholar, inventor and scientist; he contributed to mechanics, hydraulics, architecture, engineering, and natural history, among other fields. His work on mechanical production of speech later helped in the development of the telephone. In the year 1770, to entertain his sovereign, Holy Roman Empress Maria Theresa, he produced an amazing spectacle.



To the Viennese court, von Kempelen unveiled a finely crafted maplewood cabinet, mounted on wheels and measuring about 4 feet long, 3½ feet high, and 2 feet deep. A chessboard was inlaid on top. At it sat a mannequin, a mustached figure dressed in cloak and turban, "the Turk." Opening doors in the cabinet, von Kempelen displayed its interior, showing gears and other machinery. He also drew aside the Turk's garments, showing the figure to be a purely mechanical thing. These displays made it appear that no living thing much larger than a mouse could possibly be hidden inside the cabinet or mannequin.



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Yet when a volunteer from the audience made a move on the chessboard, the Turk's eyes scanned the board, its head nodded, and it moved a chess piece in reply with its own hand. Not only did the Turk move its own pieces, it moved them logically, winning the game, against one of the court's better players. The empress was delighted, the audience astounded, and the Turk became the talk of Vienna. Eventually von Kempelen toured Europe with it, entertaining and mystifying both royalty and commoners, with the Turk winning the great majority of its games.

After von Kempelen's death in 1804, the Turk passed through various hands, eventually coming to Johann Maelzel, a flamboyant P. T. Barnum-style showman. Under his management it gained its greatest fame. In 1809 it played and defeated the otherwise all-conquering Napoleon. Circa 1817-1837, Maelzel toured Europe and America, featuring the Turk in popular shows with other mechanical marvels and dioramas of his own design, plus magicians, jugglers, and the like. Other automatons appeared, mostly inferior imitations whose makers hoped to siphon off some of Maelzel's business. The Turk was world famous, the subject of books, pamphlets and articles, including one by Edgar Allen Poe, all analyzing, speculating on and purporting to reveal the secret of its operation. Yet almost all of these missed the mark. It was not until 1834, when one of its former operators wrote an exposé, that the truth became widely known. After Maelzel's death in 1838, the Turk ended up in Philadelphia, becoming an exhibit at a small museum. There it stayed, becoming gradually forgotten and neglected, until it was destroyed by a fire in 1854.

While some gullible people did believe that the Turk was a true chess-playing machine, anyone of much intelligence and education knew that of course a human operator was hidden inside. The mystery was not how the Turk played chess, but how the human player was concealed despite the seeming impossibility. As was later revealed, he worked inside the cabinet, by candlelight in very cramped, hot, stuffy conditions, and he was only too glad when the show was over and he could be let out.

Mention of "letting out" reminds me of essayist Cyril Connolly's statement that "Imprisoned in every fat man a thin one is wildly signalling to be let out." The same can be true of books, and is in this case. Inside this too long and too dull book is an interesting but considerably thinner, shorter one begging to be let out.

The book's features divide into good or bad along fairly clear lines; I'll discuss the good first. Physically, as with most McFarland & Co. products, it is a handsome book, large (8½"

x 11½"), with a colorful glossy cover. It is nicely illustrated, reproducing (in black and white) many paintings, drawings, posters and photographs relevant to the Turk's story. These include a photo of a modern replica, an actual working model believed to be exactly like the original Turk in every known detail, recently built at a cost of \$120,000 (!).

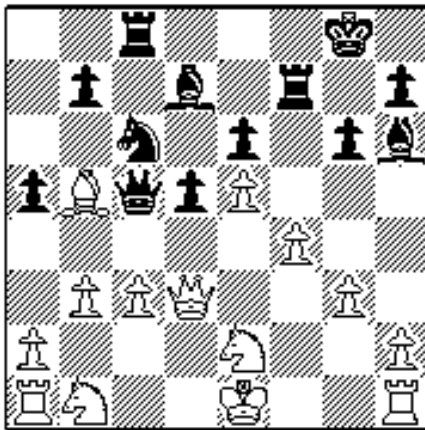


The book is probably the most complete compilation of information about the Turk ever in one volume. It quotes at length from relevant writings from the late 1700s to the 1940s. Among the major sources are Karl von Windisch's *Inanimate Reason* (1784), Henri Decremps' *La Magie Blanche Dévoilée* (1784), Baron Racknitz's *Ueber den Schachspieler des Herrn von Kempelen und dessen Nachbildung* (1789), Robert Willis' *An Attempt to Analyse the Automaton Chess Player* (1821), the anonymous *Automate Joueur d'Echecs* (1834), Poe's *Maelzel's Chess Player* (1836), Silas Mitchell's *The Last of a Veteran Chess Player* (1857), and George Allen's "The History of the Automaton Chess-Player in America" from *The Book of the First American Chess Congress* (edited by D. W. Fiske, 1859). These writers are quoted so frequently and at such length that at times it seems they, especially Allen, are writing the book, and that the nominal author, Gerald Levitt, is more the editor (as will be seen, Levitt should have written even less and edited more). Several of the historical sources are reprinted in full among the book's 86 pages of appendices. In scholarly fashion, there are ample indexes and footnotes. Thus as a reference source *The Turk* is a fine piece of work.

It also presents 52 hard-to-find games played by the Turk. 50 of these come from a book by W. J. Hunneman, a friend of Maelzel who recorded them during the automaton's 1820 shows in London. The operator was Jacques-François Mouret

(1787-1837), a Café de la Régence master and relative of Philidor. In all of these the Turk gave odds of pawn and move, yet scored +45 -3 =2. In many the Turk's opposition was poor, but interesting moments still arose.

Sturmer-Turk (Mouret), London, 1820 (remove Black's f-pawn): 1 e4 e6 2 d4 c6 3 Be3 d5 4 e5 g6 5 Be2 Nh6 6 Bxh6 Bxh6 7 g3 Qb6 8 b3 c5 9 dxc5 Qxc5 10 f4 Nc6 11 Nf3 0-0 12 c3 a5 13 Nd4 Bd7 14 Bb5 Rac8 15 Qd3 Rf7 16 Ne2?
(See Diagram)



16...Nxe5! 17 fxe5 Bxb5
18 Qc2?? Qf2+ 19 Kd1
Qf1+ 20 Rxf1 Rxf1#.

Several of the games do involve stronger players, such as John Cochrane, one of Britain's best at the time, against whom the Turk scored +3 -1 =1. Incidentally, it was probably Mouret who, sick and short of money, wrote *Automate Joeuer*

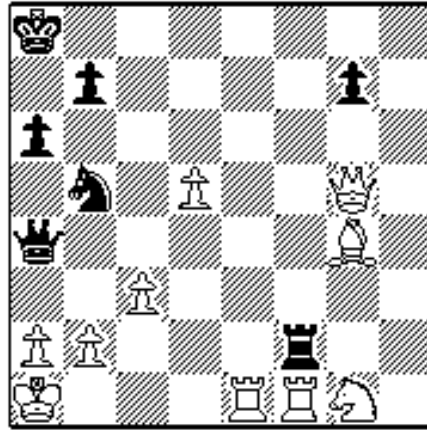
d'Echecs, the anonymous 1834 article that exposed how the Turk actually worked.

Two other "Turk" games are given, one by Johann Allgaier, with his opponent none other than Napoleon, and one by William Schlumberger, a close Maelzel associate who was once chess teacher to Pierre Saint-Amant. All these 52 are from the Turk's time with Maelzel; if any by von Kempelen's operators were recorded, none are known today.

Another 83 games are given, not by the Turk as such but played by men who operated it at various times, chiefly William Lewis, a strong English player and chess writer, and Boncourt of Paris, a very strong Café de la Régence master about whom little is known today. These were taken mostly from *The Oxford Encyclopedia of Chess Games, volume I, 1485-1866*, by Levy and O'Connell. Most or all the 135 games have one diagram, but none are annotated.

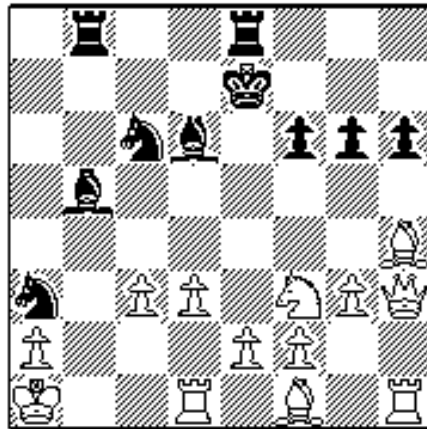
In addition to these full games, the book gives 17 "endgames," though some would be more accurately called problems or middlegame combinations. During the Turk's career these were kept in a "little book bound in green morocco," long thought lost but which author Levitt traced to a library in Philadelphia. Sometimes the Turk would play these pre-composed positions in lieu of full games, especially when the operator of the day was not a strong player, as sometimes happened. The positions were intended to allow whoever moved first to win. The Turk's opponent would be

given choice of color, but the operator, moving first and armed with prior analysis and perhaps crib sheets, would supposedly win either way. The "little book" does not give the solutions the Turk actually used, but Levitt tries to provide some, as here (*See Diagram*).



According to Levitt, White to play wins by **1 Re8+** (of course the obvious **1 Rxf2** is also quite sufficient)
1...Ka7 2 Qe3+ b6 3 Qe7+ Nc7 4 Qxc7#, or
 Black to play by
1...Nxc3 2 Qd8+ Ka7 3 a3 Qxa3+ 4 bxa3 Ra2#.

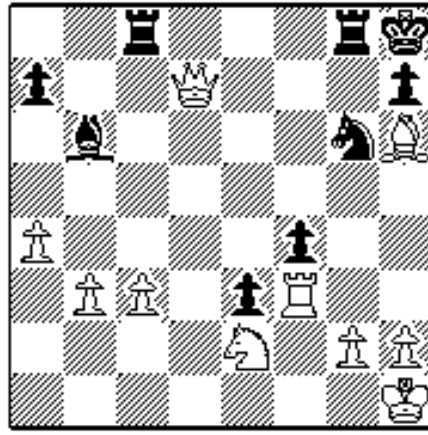
However, here we come to the debit side of *The Turk's* ledger. Close scrutiny shows Levitt's "solutions" to be quite a mess. The above position is a mild example. While **1...Nxc3** is Black's best move, one wonders what the Turk did if White replied **2 Re8+!**, when things look dead even after **2...Qxe8 3 Rc1 Qb5 4 Be2 Nxe2 5 Nxe2 Rxe2 6 Qxg7 Qxd5**, a variation not mentioned. A further example is this position (*See Diagram*),



for which simply "?" is given for both sides. A little analysis would have shown that with White on move almost anything wins. However, with Black moving first, White still wins, though after **1...Ba4!?**, Black's best bet, threatening **2...Nc2** mate, White must run a tricky gauntlet of

"only" moves: **2 Bxf6+! Kf7! 3 Qd7+ Re7 4 Ng5+! Kg8 5 Qc8+!! Rxc8 6 Rxh6 Rg7 7 Bxg7** and wins. This interesting line is not mentioned.

And Levitt makes a complete muddle of this position (*See Diagram*).



It is in fact an easy win for White either way (1 Qe6 probably being most efficient), but Levitt gives "?" for White. And for Black he gives "1 Rce1 Qg2 2 Re8+ Nb8 3 Rxb8+ Kxb8 4 d7+ Qxg3 5 d8Q+ Rc8 6 Qxc8+ Kxc8 7 hxg3 Wins." Amazing — not only White moving first

instead of Black, but hardly a legal move in the whole lot! In fact these moves fit none of the 17 positions at all.

Levitt speculates that archaic local rule variations may account for the apparent insolubility of some positions, but only negligence accounts for this one. These are not the only flawed solutions; computer-assisted analysis revealed significant errors of omission and/or commission in the great majority.

Problems with these endgames are minor, however, compared to the book's two major flaws. Firstly, the author, a retired podiatrist from Florida, is a good researcher but not as good a writer. He is sometimes competent, for example he does a passable job in sketching the two most important characters in the Turk's story, von Kempelen and Maelzel. But too often he waxes tedious, or florid with overheated metaphor. This example of the latter reads like badly translated Victor Charushin:

"In Europe, the patchwork of countries was always changing shape, being remolded to the glee of the mapmakers. The outer boundaries of the continent were fixed by natural dimensions, but the interior churned and bubbled like a witch's cauldron. Wars and treaties flowed from death, heredity, and ambition, the sparks that fired the alterations." (p. 64)

Prose like that sets my teeth on edge. Levitt also contradicts himself, sometimes from one sentence to the next. Consider this passage:

"The media in those days were a vibrant and ubiquitous part of society: Newspapers, pamphlets, broadsides, handbills, books, the mail, and word of mouth were a mighty force available to spread the word about anything, war or pestilence, politics or peace. The radiation of news was slow and limited. News of the Turk jumped like wildfire ... and spread quickly throughout Europe." (p. 18)

What a shambles! Yet the book's worst literary sin is repetitiousness. The same points are made over and over, for example:

"The followers of the Turk were stunned when [Maelzel] announced the news: from then on, the Turk would play without his King's Bishop Pawn, and the opponent would have the first move! Walker speaks of Mouret: 'Mouret was a chess-player of the Deschappelles school ... To make the play of the Automaton still more striking, it was now resolved that it should give odds of pawn and move to all comers...' ... This was known as giving odds of pawn and move ..." (p. 47)

Right, got it, pawn and move. In addition to such repetition, the author seems to think that, having quoted an historical source, it is somehow important to paraphrase it, parrot-like, immediately afterwards:

"Windisch then says ... 'The first idea that strikes you, on a superficial examination ... is a suspicion that its movements are effected by the immediate impulse of some human being.' Windisch discusses his immediate impression upon viewing the device that there must be a human being hidden inside ..." (p. 102)

Does Levitt really think the second sentence adds anything? Further on it gets worse:

"After much thought and deliberation, [Baron Racknitz] came to some conclusions, foremost being that there must be some hidden director inside the automaton ... In a preface Racknitz then tells us: 'The chess machine by Mr. von Kempelen has ... sometimes [aroused] disregard and disdain ... based on the fact that [its chess play] is not created by a simple mechanism but by ... hidden interference of a free acting being.' Racknitz has expressed his opinion that the motive force of the automaton is human ... Here we have Racknitz's five hypotheses ... 'Fifth Hypothesis: A person hidden in the machine moves the Turk and manages the game.' ... The fifth hypothesis is that a human being is the controlling force." (pp. 109-111)

Good grief! There must have been a sale at the Department of Redundancy Department. Does Levitt think his readers are Teletubbies, who want everything repeated "Again! Again!""? Lest the reader think me harsh, take comfort that I have spared you many other redundancies I might have quoted.

This repetition contributes to the last major problem: this is probably more book than its subject can bear. The Automaton is hardly the dullest topic in chess, but to expect it to keep a reader's interest throughout a book of this length is like asking a fancy poodle to run the Iditarod dog-sled race. To

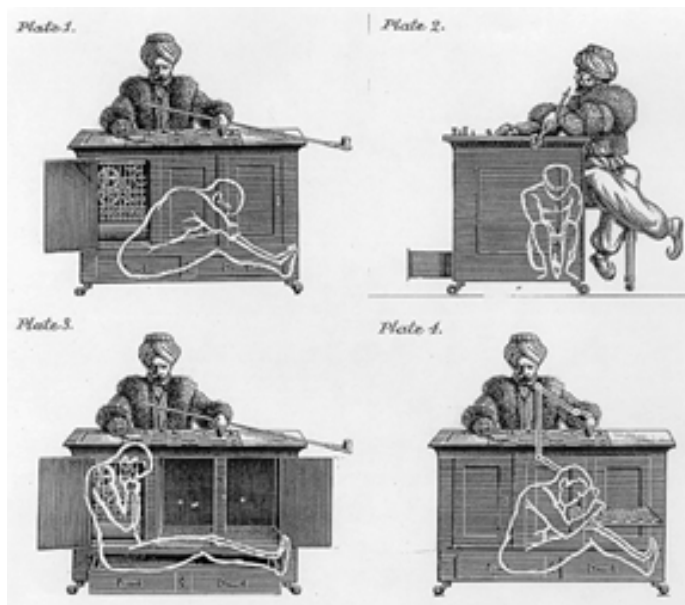
lavish so much on this subject is overkill, especially when too often it is poorly written overkill at a relatively high price. Contrary to Cyril Connolly's injunction, Levitt has fattened his work until it is noticeably overweight. A thinner, leaner treatment was called for.

Your reviewer will concede that he may be a bit jaded, due to the fact that the leaner treatment of this subject, one probably fully adequate for most readers, has already been written, by Kenneth Harkness and Jack Straley Battell. It appeared in installments in *Chess Review* from February to November, 1947, and portions were later anthologized in *The Treasury of Chess Lore* (1951), edited by Fred Reinfeld. Having read this years ago, I already knew "how the story ended" before reading *The Turk*. Thus the main element of suspense, the question of how the operator stayed concealed and worked the machine, was lacking. I won't "spoil the surprise" for potential readers by revealing the secret here, however, an anecdote from the Turk's early history shows that the final revelation can be anticlimactic. Levitt writes:

"Prussian king Frederick the Great ... was so taken by the Turk that he developed an obsession to know its secret. Von Kempelen ... did not want his enigma exposed, but the King was persistent and offered huge sums of money ... a large sum was finally agreed upon. The Baron would reveal the secret to the King, but with the severe stipulation that the King must never reveal to anyone else the mystery ... But once he saw the shroud pulled off the Turk, he was greatly disappointed. Walker tells us: 'Frederick's pride was mortified ... He was hurt ... at having been, as he fancied, duped. The spell was dissolved, the charm broken.'" (pp. 36-37)

The reader too may end up feeling like King Frederick. The Turk was, after all, essentially just a magic trick, like sawing a lady in half. Once one knows how the trick is done, it loses its fascination, and one is apt to think "Of course! It was obvious all along."

Picking one last nit, the aforementioned modern replica of the Turk prompts thoughts of a missed opportunity. Why did the author not arrange for a photo session of the new Turk in action? A series of pictures of the mannequin moving pieces, and showing how the operator enters the cabinet, how he hides himself at various points during the display of its interior, how from inside he sees his opponent's moves, how he works the arm and hand, etc., would have made a wonderful supplement to the old drawings used to illustrate these things.



Yet we get just one photo of the new Turk. Perhaps the owner, a professional magician, was like von Kempelen and Maelzel unwilling to show too much.

In sum, *The Turk, Chess Automaton* is itself a bit too much. To give the book its due, it is a fine piece of research and compilation. Though in terms of historical importance, chess automatons were only a minor sideshow, they have their place in the game's chronicles. For chess historians, this will likely become a standard reference source on the subject, and for them, for that purpose, I can recommend the book without great reservation. However, most non-scholarly readers, unless they have a special interest in this kind of thing, will likely find *The Turk* something of an expensive bore.

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