

EARLY PAPERS ON THE QUEENS PROBLEM

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Professor Brett Stevens and I wrote the following survey paper on the n -queens problem: Jordan Bell and Brett Stevens, *A survey of known results and research areas for n -queens*, Discrete Math. **309** (2009), no. 1, 1–31.

Ed. Lucas, 123. [Q4c], p. 67, L'intermédiaire des mathématiciens, vol. 1 or 2, 1894.

C. Planck, *The n queens problem*, The British Chess Magazine, 95–97. I don't have the year or volume written down. Discussing a previous paper by Carpenter. Mentions “nasik” magic squares, “Caïssan squares”, and “nisik” squares (magic squares where the diagonals add to the magic constant).

Geo. E. Carpenter, *On the N Queens Problem, or how to place N Queens on a Board of N squares on a side so that no Queen shall interfere with the action of any other*, The British Chess Magazine, vol. 20, February or March 1900, pp. 42–48. Carpenter is from Tarrytown, New York. He references several papers about the n queens problem. Carpenter mentions a paper of his own where he discusses the problem “at considerable length”, in O. A. Brownson's *Chess Journal*, Dubuque, Iowa, 1873–1874. To explain the linear solution that works for $n \equiv 1, 5 \pmod{6}$, Carpenter describes a cylindrical chessboard.

Siegmund Günther, *Zur mathematischen Theorie des Schachbretts*, Grunert's Archiv der Mathematik und Physik, vol. 56, 1874, 281–292. Determinants.

P. Poulet, 4984 (1919, 163) (Samboul) *Suites de nombres*, L'intermédiaire des mathématiciens, 1922, pp. 92–93.

Harold Tarry, [J 1 c], *Compte Rendu de la Session*, Association française pour l'avancement des sciences, vol. 26, 1897, p. 176.

Comptes-Rendus du Deuxième Congrès International de Récréation Mathématique, Paris, 1937, published in 1937 by Librairie du “Sphinx”, Bruxelles. Some papers on magic squares and a chessboard problem about nonattacking rook-knight pieces.

R. Hoppe, *Bemerkung zum Königinnenproblem*, article 6, pp. 333–334.

W. Ahrens, *Mathematische Spiele*, IG1, pp. 1080–1093, from the Enzyklopädie der mathematischen Wissenschaften. This is a good article.

Heinr. Behmann, *Das gesamte Schachbrett unter Beachtung der Regeln des Achtköniginnenproblems zu besetzen*, Mathematisch-Naturwissenschaftliche Blätter, 7. Jahrgang, 1910, pp. 87–89.

G. Sforza, *Una regola pel gioco della n regine quando n è primo*, Periodico di matematiche, vol. 5, no. 4, 1925, pp. 107–109.

M. A. Sainte-Laguë, *Les Réseaux (ou graphes)*, Mémorial des sciences mathématiques, L'académie des sciences de Paris, fascicule XVIII, 1926.

H. Tarry, *Problème des reines*, 605. [Q4b], L'intermédiaire des mathématiciens, vol. 2 or 3, 1895, p. 205.

Question 963, by Lionnet, p. 560 (of which publication?), how many placements of n nonattacking queens are there on the $n \times n$ chessboard? Two unrelated questions of Laguerre follow on the same page.

Netto, *Lehrbuch der Combin.*