# **ARCHIVES: CAR**

# Collection of C A Carus-Wilson re electrical engineering

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Archives: CAR

#### Collection of C A CARUS-WILSON

# 4 OFFPRINTS ETC 1893-1906

BOX 1 OF 2

- 1. Physics and engineering at the McGill University, Montreal/Nature, 1894, Oct 4. pp.558-564. ill.
- 2. Electrical engineering plant at McGill University/Electrical Engineer, Vol.XV, No.262, 1893, May 10. pp.447-558. ill.
- 3. Electrical engineering at McGill University, Montreal, Can./Electrical Engineer, Vol.XVI, No.273, 1893, July 26. pp.73-75. ill.
- 4. A new arrangement of the Kelvin Balance/Electrical Review, Vol.35, No.885, 1894, Nov.9. pp.549-550.
- 5. McGill University electrical engineering laboratory/Electrical Engineer, Vol.XVIII, No.340, 1894, Nov.7. pp.369-370. ill.
- 6. The Royal Institution (account of a discourse by Professor Carus-Wilson given to the Royal Institution, entitled 'Some features of the Electric Induction Motor)/The Engineer, 1899, May 5. pp.444.
- 7. American Universities at the Columbian exposition: IV The McGill, Montreal/Engineering, 1893, Aug.18. pp.195-196. ill. (Pictures on p.210).
- 8. Professor Carus-Wilson on radial trucks: a question of terminological inexactitude/Electrical Industries and Investments, No.255, 1906, Mar.14. p.601.
- 9. Three sheets numbered 1 to 3. List of enprints and slides, handwritten [n.d.]
- 10. Sketch of a lecture on the Electric Induction Motor. Typewritten, 2 pages. [n.d.]
- 11. Abstract of discourse by Professor C A Carus-Wilson on some features of the electric induction motor. Typewritten with corrections and alterations in manuscript form. 2 pages.

The New Astronomical model by William Wilson - collection of booklets and advertising leaflets.

- 1. Journal of the British Astronomical Association, London, Vol.XXVII, No.5, Eyre & Spottiswoode Ltd. 1917, March.
- 2. The New Astronomical Model/William Wilson [n.d.] 4 pages, ill.
- 3. The New Astronomical Model/William Wilson Patent number 106658, patented 1916, May 29. London: Hazell, Watson & Viney Ltd [n.d.] 4 pages, ill.
- 4. Pamphlet The New Astronomical Model/William Wilson London: Hazell, Watson & Viney Ltd [n.d.] 15 pages, ill.
- 5. The New Astronomical Model: written appreciations from well-known astronomers and educationalists/4 pages [n.d.]
- 6. The New Astronomical Model/William Wilson 2 pages, ill. [n.d.]
- 7. Extracts from letters from Samuel L Boothroyd to William Wilson/typewritten, 1922-23.
- 8. Methods of payment for the new astronomical model/2 pages, ill. [n.d.]
- 9. Instruction booklet/William Wilson London: Wilkinson Bros [n.d.] 40 pages.
- 10. Additional letter to illustrated pamphlet. Typewritten, 1 page [n.d.]
- 11. Supplementary apparatus. Typewritten, 2 pages [n.d.]
- 12. Three Features of Great Importance. Typewritten, 2 pages [n.d.]
- 13. Astronomy by model: a new device for facilitating the study of the sun and moon/reprint from Conquest, 1920, Aug. 2 pages, ill.
- 14. Order form. 1 page [n.d.]
- 15. Letter of recommendation/Rev.A L Cortie. Typewritten, 1 page, 1921, Aug.4.
- 16. Note on the new astronomical model/Rev.A L Cortie (reprint from Nature, 1919, Nov.27. pp.343-4). 1 page [n.d.]
- 17. Description of diagram. 2 pages [n.d.] ill.

### Patents, 1906-1907

- 1. British patent no.305. Improvements in and or connected with railway wagons. Applied for 4 Jan 1906, granted 3 Jan 1907. 1906, 6 pages, ill.
- 2. British patent no.7151. Improvements in and or connected with railway trucks. Applied for 24 Mar 1906, granted 10 June 1907. 1906, 6 pages, ill.
- 3. French patent no.376.256. Chemin de fer et tramways: voitures et accessoires. Applied for 23 Mar 1907, granted 5 Aug 1907. 1907, 4 pages, ill.
- 4. German patent no.188394. Durch ein besonderes Steuergestall einstellbares Drehgestell von Eisenbahnfahrzenger. Applied for 1 Sept 1906, granted 20 July 1907. 1907, 3 pages, ill.
- 5. Carus-Wilson drawing and typewritten specification [n.d.] 6 pages, ill.

# Correspondence with F Gibbins on Duplex wagon and radial truck.

Correspondence 1906, Jan to 1906 July between Carus-Wilson and F Gibbins Esq, relating to the Duplex wagon and radial truck. 23 items, 25 pages, typewritten.

Correspondence 1906, May to 1906 July between F Gibbins and Carus-Wilson, relating to the Duplex wagon and radial truck. 7 items, 8 pages, manuscript.

Estimation of cost of radial truck with pneumatic air device. 1 item, 3 pages, manuscript.

## Letters from W N Smith

Correspondence 1905 March to 1905 December from W N Smith concerning a paper presented by W N Smith and Mr Lyford to the American Institute of Electrical Engineering. 2 items, 8 pages. Typewritten.

BOX 1

Archives: CAR

- 1. Royal Institution of Great Britain/schedule of meetings after Easter, 1899. 6 pages.
- 2. Correspondence 1899 May, from the Royal Institute thanking Prof. Carus-Wilson for his discourse of April 28th. 1 page, manuscript.
- 3. Eight lectures on the Direct Current Motor/ syllabus for all eight. Commencing May 8th [no year]. 2 pages.
- 4. Handbill/lecture XIIIVI by Prof. Carus-Wilson, 1900, Nov. 1 page, 2 sides.
- 5. Ditto except in colour and larger size.
- 6. Notice/University of London, outline syllabus of 5 lectures on Natural Phenomena in Literature, History and Art [n.d.] 1 sheet, typewritten.

Correspondence 1902 Jan to 1905 May from Barbier and Salomon concerning the experiments on train reinstance. 6 items, 10 pages, typewritten.

Notes on Barbier's 'Revue General des Chemins de Fer@ 1897. 4 pages, 2 ill. Manuscript.

- 1. Arts 1 to 33B. Contents are for private circulation only. Contains Professor Callcott Reilly's course of mechanics applied to construction 1-33B [n.d.] 84p. Typescript (title page manuscript).
- 2. As 1, parts 34-49A. 73p...
- 3. As 1, parts 50-69. 66p.
- 4. As 1, parts 90-94. 22p.
- 5. Plates only of Arts 1 to 69 [n.d.] 10p.
- 6. Plates only of Arts 120-121 and 310-315 [n.d.] 3p.

Archives: CAR

Sketch map of the province of British Columbia. Scale 75 miles to the inch. Black and white [n.d.]

Notes on derailment. Uses different examples to illustrate reasons for derailment and optimum conditions [n.d.] (9p) manuscript.

Notes on derailment on sharp corners at low speeds. Uses equations and looks at different types of engines [n.d.] (21p) ill. Manuscript.

Notes on gyration. States a general case then looks at Palace, Bogie coach and straight gyration [n.d.] (6p) ill. Manuscript.

Oblique effect gyration. Notes on pushing and pulling engines [n.d.] (8p) ill. Manuscript.

High speed. Relation to weight of cars and train, strains on the engine, wind pressure and forward friction [n.d.] (14p) ill. Manuscript.

Stevrine (type of engine?) Dimensions and weight of whole vehicle. Effects of travelling at different speeds [n.d.] (4p) manuscript.

List of references [n.d.] 1 page. Manuscript.

12 Ion Duplex. List of varying components [n.d.] manuscript.

Arnold (type of engine?) Dimensions of vehicle and effects of varying components [n.d.] (7p) manuscript.

Gors, Barbier, Avi and Aspinall. 3 pages on Gors, 5 on Barbier, 2 on Avi and 1 on Aspinall [n.d.] (11p) ill. Manuscript.

G, N & City [n.d.] (3p) ill. Manuscript.

Bengal-Napur Railway Co. 1906 May (4p) manuscript.

The resistance of goods trains. Notes on an article in The Engineer, 1910 May. Written 1910 July. 1 page, manuscript.

List of references to articles, dating 1894 to 1899 [n.d.] (2p) manuscript.

Reference on curves. Formulae and notes (one is written on the back of a letter from Kenton & Co dated 1902 Jan) [n.d.] (7p) manuscript.

List of references, some crossed out [n.d.] 1 page, manuscript.

Notes on two articles, one on Sharp Bicycles, the other in Circuits, Vol31, 1871 [n.d.] 2 pages, manuscript.

Dio. Notes and equations [n.d.] (5p) ill. Manuscript.

Wellington. Notes and equations [n.d.] (5p) ill. Manuscript.

Reference to article in Revue General des Chemins de Fers, 1890 May [n.d.] 1 page, manuscript.

Von Borries. Notes and equations [n.d.] (2p) manuscript.

Correspondence 1902 Feb from P V McMahon concerning weight of a coach with one bogie. 1p. Holograph signed.

Skin resistance and air friction. Notes and equations [n.d.] (14p) ill. Manuscript.

Numbered list of references (37-46) 1 page. Manuscript.

Notes on articles [n.d.] 1 page, manuscript.

Roller bearings: centrifugal force of motions. Notes and equations [n.d.] (9p) Manuscript.

Notes on 'Enquiries sur les moques de journier les accidents de Chemins de Fer 1879-1880. Paris 1882 [n.d.] 1 page, manuscript.

Notes and equations [n.d.] (2p) manuscript.

Storage of energy [n.d.] (4p) manuscript.

2 graphs (no titles) [n.d.] (2p) ill.

Heat. IVA. Contents list and notes [n.d.] (6p) manuscript.

Sound. Notes on harmonic motion, vibration, pitch etc [n.d.] (10p) ill. Manuscript.

Natural Phenomena. Includes notes on glaciers, earth movements and volcanoes. 1916 Dec (10p + one article) ill. Manuscript.

Heat. Notes on specific heat, vapourisation, latent heat and thermometers [n.d.] (13p) manuscript.

Heat. Notes on the nature of heat, thermometers, temperature and the expansion of solids and gases [n.d.] (9p) manuscript.

Shape of the Earth and its rotation. Notes [n.d.] (8p) ill. Manuscript.

Sundial. Notes on sundials [n.d.] 1 page, manuscript.

Motion. Notes and equations [n.d.] (7p) ill. Manuscript.

Machines. Includes notes on friction, the pulley and equilibrium [n.d.] (9p) ill. Manuscript.

Moments (B). Includes notes on the centre of gravity of objects [n.d.] (5p) ill. Manuscript.

References [n.d.] 2 pages. Manuscript.

Archives: CAR BOX 1

Drawings (no titles) [n.d.] (19p) manuscript.

Tables showing angle of truck on curves of various radii. Wheelbase 18'-0" (3 copies each with different rotations) [n.d.] (3p).

Burnley Corporation Tramways - Car no.43 tyre sections. 1908 Feb. 1 page, ill.

Map of Bradford City Tramways. Scale 1" to 1 mile. Colour [n.d.]

Burnley Corporation Tramways - Car no.47. Simpson - Park Radial Trucks. 1908 July. 1 page, ill. Manuscript.

Bradford Double Gauge Car 124 (?) July. Notes only, 1 page, manuscript.

Burnley Corporation Tramways - section of tyres. Car no.47 1908, Feb. 1 page, ill.

Sketch showing method of oiling pneumatic truck control. 1908 March. 1 page.

Map (no title) hand drawn, not to scale. Shows Turf St, Plumbe St, Eastham Place, St Mary's RC Church, Albert St, Convent, Belvedere Rd, Todmorden Rd and the Wellington Arms [n.d.] 1 page, ill.

Map (no title) hand drawn, not to scale. Shows course of St James St and Yorkshire St [n.d.] 1 page, ill.

S & P Tests Burnley July 1908. Map, hand drawn, not to scale. 1 page, ill.

Technical drawing of a carriage (no title) [n.d.] 1 page, ill.

Technical drawing of a carriage (no title) [n.d.] 1 page, ill.

Technical drawing of section of engine (no title) 1907, April. From Reavell & Co Ltd, 1 page, ill.

Estler Brothers Pilot Frame and Gear. Scale half size. 1907 April. 1 page, ill.

Technical drawing of a carriage (no title) [n.d.] 1 page, ill.

Estler Brothers Bracket to carry pilot frame. Scale full size. 1907 March. 1 page, ill.

Technical drawing of a carriage (no title) [n.d.] 1 page, ill.

Notes on pilot wheels [n.d.] 1 page, manuscript.

Technical drawings of wheel bearing (no title) [n.d.] 1 page, ill.

Results of tests for comparative radiation. 1908 May. Table by Harold Shand. 1 page.

Suggestions for working cylinder. 1908 March. By Harold Shand. 1 page, ill. Drawing on waxed linen (no title) [n.d.] 1 page.

Graph. Scales 'Vitesse en kilometres a cheure' against 'Efforts on Kilos' (no title) [n.d.] 1 page, ill.

Comparative test of radial trucks with and without link suspension [n.d.] 1 page, ill.

Cylinder for automatic truck control. Scale 6" = 1 ft. 1907 May. 1 page, ill.

Estler Brothers pilot truck survivel. 1912 Sept. 1 page, ill.

Estler Brothers pilot truck. 1907 May. 1 page, ill.

General arrangement of pneumatic truck control. Scale 3" = 1 ft. 1907 April. 1 page, ill.

Bracket for fixing pilot frame to sub-truck. Scale half size. 1907 April. 1 page, ill.

Memorandum regarding radial trucks. From J H McGraw. 1904 October. 1 item, 2 pages, typescript.

Radial truck control. 1909 March. 1 item, 7 pages, typescript with handwritten notations.

Technical drawing of a truck. Scale 1 1/2" to 1" [n.d.] 1 page, ill.

CARUS-WILSON BOX 2 OF 2

1. Electro-Dynamics: the direct current motor by C A Carus-Wilson. 1898. Monograph. 298p. ill.

### **OFFPRINTS**

- 2. On the behaviour of steel under mechanical stress/Carus-Wilson IN Philosophical Magazine, 1890 Feb (11p) ill.
- 3. The rupture of steel by longitudinal stress/Carus-Wilson <u>IN</u> Proceedings of the Royal Society, Vol.49, 1890 March (15p) ill.
- 4. On the distribution of flow in a strained elastic solid/Carus-Wilson <u>IN</u> Philosophical Magazine, 1890 June (5p) ill.
- 5. Der Achshucks-Komprenor (11p) ill.
- 6. Special report on Peckham 14-D-5 maximum traction truck/George L Fowler-New York: Peckham 1904 Feb (4p) ill.
- 7. Peckham patent radial truck No.547. Diagram [n.d.].
- 8. De l'influence sur la flexion des poutres de la position superficielle de la charge/ M A Flamant (mentions Carus-Wilson) <u>IN</u> Annales des ponts et chaussees, 1893 Aug.
- 9. Train resistance/John Audley Frederick Aspinal London: Institution of Civil Engineers 1901 (40p) plus notes by Carus-Wilson. ill.
- 10. The origin of the solar system/Dr J H Jeans London: Royal Institution, 1924 Feb. 20p. ill.
- 11. Atmospheric resistance to the motion of railway trains/Prof. W F M Gors IN Proceedings of the Western Railway Club [n.d.] 28p. ill.
- 12. A scheme for the comparison of climates/W F Tyler <u>IN</u> Journal of Balreology and Climatology, 1904 Feb. 31p. ill.
- 13. Cyclist awarded £175 damages. Newspaper clipping [n.d.] mentioning Carus-Wilson.
- 14. British and American Railways/Com Supp to the Times 1905 Nov. Newspaper cutting.
- 15. Grand Truck Pacific Railway/Com Supp to the Times 1905. Newspaper cutting.
- 16. Electrical locomotive/William C Unwin [n.d.] Newspaper cutting.
- 17. Horse-power of electric trams/R S Ball [n.d.] Newspaper cutting.

- 18. Excerpt from Liquid Fuel on the Great Eastern Railway <u>IN</u> Engineering Times [n.d.] 285-288pp. ill.
- 19. Track surface and line IN Electrical Review, 1905 Sept. 3p.
- 20. Review of 'Les accumulateurs electriques' by L Juman <u>IN</u> La Revue Electrique No.14, 30 July 1904. 5p. ill.
- 21. 'Railway Engineering' IN The Engineering Review, pp.34-50. ill. [n.d.].
- 22. Patent No.15,059. Improvements in radial railway and tramway trucks. Reprinted 1906 2 August. 5p. ill.
- 23. Patent No.19,714. Improvements in trucks for self propelled vehicles. 2nd ed. 1905, 31 August. 5p. ill.
- 24. Patent No.29,645. Improvements in and relating to power driven vehicles, 1908 29 February. 3p. ill.
- 25. Philosophical magazine and journal of science London: Vol.32, No.199, 1891 Dec. 87p. ill.
- 26. The influence of surface-loading on the flexure of beams/Prof. C A Carus-Wilson IN Philosophical magazine, 1891, Dec.
- 27. Polyphase electri traction/Prof. C A Carus-Wilson London: Institution of Mechanical Engineers. 1900 June. 27p. ill.
- 28. Ezekiels' vision of the divine glory/C A Carus Wilson. Being a paper read before the Victoria Institute. 1909 5 April. 8p. ill.
- 29. The design of electric railway motors for rapid acceleration/Prof. Charles A Carus-Wilson. Excerpt from the journal of the proceedings of the Institution of Electrical Engineers, part 136, Vol.XXVPI, 1898 May. 57p. ill.
- 30. The predetermination of train resistance/Charles Ashley Carus-Wilson. Excerpt Minutes of the Proceedings of the Institution of Civil Engineers, Vol.CLXXI, session 1907-1908. 95p. ill.
- 31. The vision of the divine glory/Ashley Carus-Wilson IN The Interpreter, Vol.6, No.1, 1909 October. 11p. ill.
- 32. Properties of materials: an introductory course/C A Carus-Wilson FROM The School Science Review, No.10, 1921 Dec. 9p.
- 33. The teaching of science in secondary schools/Prof. C A Carus-Wilson IN Journal of the Royal Society of Arts, Vol.LXXIII, No.3761, 1924 Dec. 14p.
- 34. The resistance of railway trains/C A Carus-Wilson FROM Bulletin of the International Railway Congress Association, 1908 Aug. 6p.

- 35. The tramways and light railways association, official circular, 1908 July. 38p.
- 36. Rail Cornigation/Prof. C A Carus-Wilson <u>FROM</u> Tramway Congress of the Tramways and Light Railways Association at the Trans-British Exhibition, 1908 July. 6p. ill.
- 37. Pneumatic despatch/Prof. C A Carus-Wilson. A paper read before the Society of Arts, 1900 Feb. Reprinted from the journal of the Society of Arts. 12p. ill.
- 38. As above, complete journal.
- 39. Cantor lectures on electric traction. Delivered before the Society for the Encouragement of Arts, Manufactures and Commerce, 1898 May. 43p. ill.
- 40. Electrical traction on steam railways in Italy/Prof. C A Carus-Wilson-London: Institution of Electrical Engineers. Excerpt from the Journal of the Proceedings of the Institution of Electrical Engineers. 1902. 30p. ill.
- 41. Old Hailenhurian Society, 12th Annual General Meeting, 1907 August 2nd. 36p.
- 42. The Tramways and Light Railways Association official circular, 1906 March. 11p. ill.