

FOREWORD
to
SUPPLEMENTARY BIBLIOGRAPHIES

Since the publication of the original fifty subjects of this Bibliography, many favorable comments have been received as to its usefulness. The demand from aeronautical organizations, both in the United States and abroad, for supplementary volumes bringing the subjects up to date, has been so great that authorization has been granted and funds allotted by the Work Projects Administration for that purpose. This supplementary volume is issued in response to this demand.

The Project, sponsored by the Mayor of the City of New York, receives the cooperation of the Institute of the Aeronautical Sciences which directs the research and publishing staff workers.

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ABBREVIATIONS

- A.R.C. R. & M. - Great Britain. Aeronautical research committee. Reports and Memoranda.
- A.S.M.E. - American society of mechanical engineers, New York.
- Atti Assoc. ital. aerotecn. - Atti dell'Associazione italiana di aerotecnica. Roma.
- C.A.H.I. - Central aero-hydrodynamical institute, Moscow.
- C.I.N.A. - Commission internationale de navigation aérienne, Genève.
- C. R. Acad. sci. - Comptes rendus hebdomadaires des séances de l'Académie des sciences, Paris.
- D.V.L. - Deutsche versuchsanstalt für luftfahrt, Berlin.
- F.A.I. - Fédération aéronautique internationale, Paris.
- H.M. Stat. off. - His Majesty's Stationery office, London.
- N.A.A. - National aeronautic association, Washington.
- N.A.C.A. - National advisory committee for aeronautics, Washington.
- N.P.L. - National physical laboratory, Teddington, England.
- Pub. scient. tech. Min. de l'air. - Publications scientifiques et techniques du Ministère de l'air. Service des recherches de l'aéronautique, Paris.
- R.A.F. - Royal air force (Great Britain)
- R.A.S. - Royal aeronautical society (Great Britain)
- Rend. Istituto sper. aer. - Rendiconto dell'Istituto, sperimentale aeronautico, Roma.
- S.A.E. - Society of automotive engineers, New York.
- U.S. Govt. print. off. - U.S. Government printing office, Washington.
- V.D.I. - Verein deutscher ingenieure, Berlin.
- W.G.L. - Wissenschaftliche gesellschaft für luftfahrt, Berlin.
- Z.A.M.M. - Zeitschrift für angewandte mathematik und mechanik, Berlin.
- Z.F.M. - Zeitschrift für flugtechnik und motorluftschiffahrt, München.

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Section I

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BOOKS AND PAMPHLETS

- Full scale investigation of effect of several factors on shining of castoring wheels, by W. G. Howard, Jr. Washington, 1940. 12 p. diags. (N.A.C.A. Technical notes no. 760)
- A New method of studying the flow of the water along the bottom of a model of a flying boat hull, by K. E. Ward. Washington, 1940. 9 p. diags., tables. (N.A.C.A. Technical notes no. 749)
- Shock absorbing system of airplane landing gear, by P. Callerio. Washington, 1940. 18 p. illus. (N.A.C.A. Technical memorandums no. 938) (From L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 625-40)
- Stability of casting wheels for aircraft landing gears, by A. Kantrowitz. Washington, U. S. Govt. print. off., 1940. 16 p. illus. (N.A.C.A. Report no. 686)
- Drehwiderstand der reifen, von H. Kluge und A. Haas. Berlin, V.D.I. Verlag, 1939. 12 p. diags., illus., tables.
- Hydrodynamic and aerodynamic tests of a family of models of sea-plane floats with varying angles of dead rise. N.A.C.A. models 57-A, 57-B, 57-C, by John B. Parkinson, Roland E. Olson and Rufus O. House. Washington, 1939. 11 p. diags., illus., tables. (N.A.C.A. Technical notes no. 716)
- Aerodynamic drag of five models of side floats, N.A.C.A. models 51-E, 51-F, 51-G, 51-H and 51-J, by R. O. House. Washington, 1938. 6 p. diags., tables. (N.A.C.A. Technical notes no. 680)
- The Design of floats, by W. Sottorf. Washington, 1938. 19 p. diags., illus. (N.A.C.A. Technical memorandums no. 860) (From Luftfahrtforschung, München, Apr. 20, 1937, v. 14, no. 4-5, p. 157-67)
- A Discussion of certain problems connected with the design of hulls of flying boats and the use of general test data, by Walter S. Diehl. Washington, U. S. Govt. print. off., 1938. 8 p. diags., illus. (N.A.C.A. Report no. 625)
- Die Federn; ihre gestaltung und berechnung, von Siegfried Gross und Ernst Lehr. Berlin, V.D.I. Verlag, 1938. 136 p. illus.
- Festigkeitsversuche an schwimmwerken, von K. Matthaes. (In Jahrbuch der deutschen luftfahrtforschung, München, 1938. part 1, p. 342-47. illus.)

LANDING GEARS

- How to build flying boat hulls and seaplane floats, by J. Streeter. London; New York, Isaac Pitman and sons, 1938. 90 p. diagr., illus., tables.
- Hull and float design, by Earl Flavius Loudy. (In his Metal airplane structure hull and float design. New York, Norman W. Henley company, 1938. p. 415-35. diagrs., illus., tables)
- Hydrodynamic and aerodynamic tests of four models of outboard floats, (N.A.C.A. models 51-A, 51-B, 51-C and 51-D), by John R. Dawson, and Edwin P. Hartman. Washington, 1938. 21 p. diagrs., illus. (N.A.C.A. Technical notes no. 678)
- Hydrodynamic and aerodynamic tests of models of floats for single float seaplanes; N.A.C.A. models 41-D, 41-E, 61-A, 73 and 73-A, by J. B. Parkinson and R. O. House. Washington, 1938. 14 p. illus. (N.A.C.A. Technical notes no. 656)
- Landing gears, by Willis L. Nye. (In his Practical aeronautical engineering. San Francisco, Aviation press, 1938. p. 131-46. diagrs., illus.)
- On determination of the take-off characteristics of a seaplane, by A. Perelmuter. Washington, 1938. 25 p. illus., tables. (N.A.C.A. Technical memorandums no. 863) (From C.A.H.I., Moscow, 1938, p. 1-18)
- Tank tests of a model of one hull of the Savoia S-55-X flying boat, (model N.A.C.A. 46), by J. M. Allison. Washington, 1938. 11 p. illus. (N.A.C.A. Technical notes no. 635)
- Tank tests of model 36 flying boat hull, by J. M. Allison. Washington, 1938. 9 p. diagrs., tables. (N.A.C.A. Technical notes no. 638)
- Über den einfluss von federung und kielung auf den landesstoss, von J. Sydow. (In Jahrbuch der deutschen luftfahrtforschung, München, 1938, pt. 1, p. 329-38)
- Analyse experimenteller untersuchungen über den gleitvorgang an der wasseroberfläche, von W. Sottorf. Berlin, Technische hochschule, 1937. 22 p. diagrs., illus.
- Tank tests of two models of flying boat hulls to determine the effects of ventilating the step, by J. R. Dawson. Washington, 1937. 8 p. diagrs. (N.A.C.A. Technical notes no. 594)

Section II

ARTICLES, BOOKS AND PAMPHLETS - CLASSIFIED

BRAKES

- Pressure member of variable capacity, especially for the brakes of aircraft wheels. Aircraft engineering, London, Aug. 1940, v. 12, no. 138, p. 257. diags.
- Conjoint controls for aircraft retractable undercarriages and aerodynamic brakes. Aircraft engineering, London, Apr. 1940, v. 12, no. 134, p. 129. diags.
- Brake. Aircraft engineering, London, Mar. 1940, v. 12, no. 133, p. 92. diags.
- Construction of Lockheed landing gears and their hydraulic control, by S. W. Hiscocks. Aircraft production, London, Mar. 1940, v. 2, no. 17, p. 993-96. illus.
- Gummischlauchbremse. Automobiltechnische zeitschrift, Stuttgart, Feb. 25, 1940, v. 43, no. 4, p. 96. diags., illus.
- Diving air-brakes for sailplanes and aeroplanes, by H. Jacobs and A. Wanner. Aeroplane, London, Feb. 23, 1940, v. 58, p. 253-57. illus.
- Aircraft brakes. Aircraft engineering, London, Oct. 1939, v. 11, no. 128, p. 403. diags.
- Innenbackenbremsen, von Hans W. Lindemann. Automobiltechnische zeitschrift, Stuttgart, Sep. 10, 1939, v. 42, no. 17, p. 469-81. illus.
- Tail wheel brake for light aircraft. Aero digest, New York, Sep. 1939, v. 35, no. 3, p. 156. illus.
- Die Prüfung von bremsbelägen, von Karl Chowanetz. Automobiltechnische zeitschrift, Stuttgart, Aug. 10, 1939, v. 42, no. 15, p. 424-26. diags., illus.
- The Airplane brake, by Henry H. Kerr and F. C. Frank. Journal of the Aeronautical sciences, New York, Aug. 1939, v. 6, no. 10, p. 421-24. diags.
- Testing wheels and brakes at the Avery works, by R. J. Fisher. Aircraft production, London, Aug. 1939, v. 1, no. 10, p. 359. illus.
- Apron service jacks, wheels, brakes. Aviation, New York, July 1939, v. 38, no. 7, p. 36-37, 48. illus.

LANDING GEARS

- New girling aircraft brake. *Flight*, London, June 29, 1939, v. 35, p. 663. illus. (Also *Automotive industries*, Philadelphia, June 15, 1939, v. 80, p. 711)
- Graphische bremsuntersuchung. *Automobiltechnische zeitschrift*, Stuttgart, June 10, 1939, v. 42, no. 11, p. 303-06. illus.
- Zur berechnung des auf DFS-sturzflugbremsen entfallenden widerstandes, von A. Wanner. *Deutsche luftwacht, ausgabe Luftwissen*, Berlin, May 1939, v. 6, no. 5, p. 171-72. illus.
- La Fabrication des freins Bendix, par H. Petit. *La Technique automobile et aérienne*, Paris, Apr. 1939, v. 30, no. 189, p. 33-38. illus.
- Aircraft accessories; landing gear equipment. *Aero digest*, New York, Mar. 1939, v. 34, no. 3, p. 188, 191. illus.
- Wheel and brake manufacture, by R. J. Fisher. *Aircraft production*, London, Mar. 1939, v. 1, no. 5, p. 184-87. illus.
- The New Fairchild. *Western flying*, Los Angeles, Cal., Feb. 1939, v. 19, no. 2, p. 21. illus.
- Dispositif de freinage aérodynamique. *L'Air*, Paris, Jan. 20, 1939, v. 21, no. 461, p. 67.
- A New Bendix brake. *Aeroplane*, London, Jan. 11, 1939, v. 56, no. 1442, p. 57-58. illus.
- Power brake valve developed. *Aero digest*, New York, Jan. 1939, v. 34, no. 1, p. 147. illus.
- For better braking. *Flight*, London, Nov. 10, 1938, v. 34, no. 1559, p. 433. illus.
- Fahrtbremse für flugzeuge der Junkers motorenwerke. *Flugsport*, Berlin, Oct. 12, 1938, v. 30, no. 21, p. 115. illus.
- Brake linings, by H. E. Blank, Jr. *Automotive industries*, Philadelphia, Sep. 17, 1938, v. 79, p. 346-53. illus., table.
- Eine luftbremse für flugzeuge, von W. Zuerl. *Rundschau deutscher technik*, Berlin, July 21, 1938, v. 18, no. 29, p. 7-8. illus.
- Testing brakes. *Automobile engineer*, London, July 1938, v. 28, no. 373, p. 250-52. illus.
- Power brakes, by R. C. Crum. *Aero digest*, New York, June 1938, v. 32, no. 6, p. 49-50. illus.
- EKFS luftwirbelbremse. *Automobiltechnische zeitschrift*, Stuttgart, May 10, 1938, v. 41, no. 9, p. 251-52. diagrs., illus.

BRAKES

- Commandes de freins de roues sur avions. L'Aérophile, Paris, May 1938, v. 46, no. 5, p. 108d-108f. illus.
- Goodrich develops new brake. Aero digest, New York, May 1938, v. 32, no. 5, p. 84. illus. (Also Aviation, New York, May 1938, v. 37, no. 5, p. 50, 72)
- Hydraulic brake fluids, by Robert R. Fulton. Industrial and engineering chemistry, Washington, Apr. 1938, v. 30, no. 4, p. 422-27. illus.
- Timm 840. Western flying, Los Angeles, Cal., Mar. 1938, v. 18, no. 3, p. 21. diagrs., illus.
- Die Oetiker motorbremse, von Fritz Weiner. Automobiltechnische zeitschrift, Stuttgart, Jan. 25, 1938, v. 41, no. 2, p. 31-33. illus.
- Windkanaluntersuchungen an bremsplatten, von D. Fuchs. Luftfahrtforschung, München, Jan. 20, 1938, v. 15, no. 1-2, p. 19-27. illus.
- Die Berechnung von backenbremsen, von H. Dietz. Zeitschrift des V.D.I., Berlin, Dec. 1937, v. 81, no. 50, p. 1437-42. illus.
- Various actuation methods of wheel brakes, by P. Flerow. Teknika vozdušnovo flota, Moscow, Nov.-Dec. 1937, v. 11, no. 11-12, p. 37-42. diagrs., illus.
- Il existe des freins de bouche; on ne les emploie pas...pourquoi? Les Ailes, Paris, Aug. 5, 1937, v. 17, no. 842, p. 6. illus.
- Frein aérodynamique sur un aéroplane pour atterrir au pôle. Les Ailes, Paris, July 1, 1937, v. 17, no. 837, p. 6.
- The Argus wheel brake at the Brussels aero show. Interavia, Geneva, June 5, 1937, no. 438, p. 4-5.

DESIGN AND CONSTRUCTION

- Application of tapered roller bearings, by S. M. Weckstein. Aero digest, New York, Aug. 1940, v. 37, no. 2, p. 87-88. diagrs.
- Aviation sketchbook of design detail. Aviation, New York, Feb., July 1940, v. 39, no. 2, 7, p. 56-58, 61; 54-55. diagrs., illus.
- Tricycle undercarriage design on analysis of inertia loading actions for the modern landing gear, by P. B. Walker. Aircraft engineering, London, June 1940, v. 12, no. 136, p. 171-73. illus., tables.

LANDING GEARS

- Curtiss-Wright's new basic combat fighter. Aviation, New York, May 1940, v. 39, no. 5, p. 52-53, 110. diags., illus.
- Into the sub-stratosphere, by R. J. Minshall. Aviation, New York, May 1940, v. 39, no. 5, p. 46-49, 116, 119-20. diags., illus.
- Aircraft alighting gear. Aircraft engineering, London, Jan., Feb., Apr. 1940, v. 12, no. 131, 132, 134, p. 32; 61; 130. diags.
- Aircraft undercarriage. Aircraft engineering, London, Apr. 1940, v. 12, no. 134, p. 128. diags.
- Development of aircraft undercarriages, by P. Antonov. Aeroplane, Moscow, Apr. 1940, no. 7-8, p. 34-35. illus.
- Cathode ray used measuring undercarriage stress. Canadian aviation, Toronto, Mar. 1940, v. 13, no. 3, p. 30-35. illus.
- Construction of Lockheed landing gears and their hydraulic control, by S. W. Hiscocks. Aircraft production, London, Mar. 1940, v. 2, no. 17, p. 93-96. illus.
- Unveiling the "Airacobra" (chief engineer describes details of mystery ship), by Robert J. Woods. Aviation, New York, Mar. 1940, v. 39, no. 3, p. 40-41, 104. illus.
- Review of the chief landing gear types. Flight, London, Feb. 8, 1940, v. 37, no. 1624, p. 129-32. illus.
- The Navy's newest patrol bomber arrives for test, by T. N. Sandifer. Aviation, New York, Jan. 1940, v. 39, no. 1, p. 23-24. illus. (Also Western flying, Los Angeles, Cal., Jan. 1940, v. 20, no. 1, p. 32)
- Stability of casting wheels for aircraft gears, by A. Kantrowitz. Washington, U. S. Govt. print. off., 1940. 16 p. illus. (N.A.C.A. Report no. 686)
- Vantaggi ed inconvenienti di vari tipi di carrelli d'atterraggio, di P. E. Mercier. Rivista aeronautica, Roma, Dec. 1939, v. 15, no. 12, p. 465-73. illus.
- Fixed or retractable? Aeroplane, London, Nov. 16, 1939, v. 57, no. 1486, p. 594.
- Honing cylinders for landing gear. Machinery, London, Oct. 12, 1939, v. 55, no. 1409, p. 29-30. illus.
- Machining operations of landing gear parts at the Curtiss-Wright corporation. Machinery, London, Sep. 28, 1939, v. 54, no. 1407, p. 781-83. illus.

DESIGN AND CONSTRUCTION

- Mobile landing equipment (Marker beacon). Aviation, New York, Sep. 1939, v. 38, no. 6, p. 44.
- Steel castings in aircraft, by A. Finlayson. Iron age, New York, July 20, 1939, v. 144, no. 3, p. 43-47. illus., tables.
- Airplane landing gear parts require precision machining. Machinery, New York, July 1939, v. 45, no. 11, p. 784-87. diagrs., illus.
- Fairchild trainer. Aviation, New York, July 1939, v. 38, no. 7, p. 55. illus. (Also Western flying, Los Angeles, Cal., July 1939, v. 19, no. 7, p. 23)
- Carrelli tricicli, di M. Valli. L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 641-51. diagrs., illus.
- Sul sistema ammortizzatore dei carrelli d'aeroplano, di P. Callerio. L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 625-40. diagrs., illus., tables.
- Ringfederbeine für flugzeuge, von E. Richter. Zeitschrift des V.D.I., Berlin, May 27, 1939, v. 83, no. 2, p. 652-54. illus. (Abstract Le Génie civil, Paris, Sep. 9, 1939, v. 115, no. 2978, p. 226-27)
- The Unitwin Vega. Aviation, New York, May 1939, v. 38, no. 5, p. 30-31, 90-92. illus.
- Aircraft alighting gear. Aircraft engineering, London, Mar. 1939, v. 11, no. 121, p. 141-42. diagrs.
- New type landing gear wheels. Aero digest, New York, Jan. 1939, v. 34, no. 1, p. 147. illus.
- Avantages et inconvénients des différents types de trains d'atterrissage, par P. Mercier. Association technique maritime et aéronautique, Paris, 1939, no. 43, p. 417-30. illus., tables.
- Tooling for a cabin drum, by Rupert Le Grand. American machinist, New York, Dec. 28, 1938, v. 82, no. 26, p. 1136-38. diagrs., illus.
- Proposed method for the design of bottom plating for flying boat hulls and seaplane floats, by Sidney D. Berman. Journal of the Aeronautical sciences, New York, Dec. 1938, v. 6, no. 2, p. 64-67. diagrs., tables.
- Undercarriages. An outline of modern tendencies; the tricycle; persistence of fixed gear. Flight, London, Dec. 1938, v. 34, no. 1564, p. 563-65.

LANDING GEARS

- Something new in undercarriages. Flight, London, Nov. 24, 1938, v. 34, no. 1561, p. 481. illus. (Also Aeroplane, London, Nov. 23, 1938, v. 55, p. 684)
- The Greatest undercarriage advance in 25 years; the Dowty aircraft wheel. Interavia, Geneva, Nov. 23, 1938, no. 596, p. 3. diags.
- Les Atterrisseurs des avions modernes, par J. Pascaud. La Technique moderne, Paris, Nov. 15, 1938, v. 30, no. 22, p. 795-99. diags., illus.
- Nose wheel design loads, by B. Smith. Aero digest, New York, Oct. 1938, v. 33, no. 4, p. 68. illus.
- Strip aerodromes. Flight, London, Sep. 1, 1938, v. 34, no. 1549, p. 178-80. illus.
- Détermination des organes amortisseurs de l'atterrisseur. La Technique aéronautique, Paris, July-Sep. 1938, v. 29, no. 149, p. 193-212. diags., tables.
- New pneumatic ski pedestal. Canadian aviation, Toronto, Sep. 1938, v. 11, no. 9, p. 29. illus.
- Moderna landningsställe. Flygning, Stockholm, Aug. 1938, v. 16, no. 8, p. 7b-10b. illus.
- Aeroplane undercarriages, by E. Jones and F. G. R. Cook. Aircraft engineering, London, June, July 1938, v. 10, no. 112, 113, p. 165-72; 213-17. diags., illus.
- Calcolo per il dimensionamento pratico dei carrelli di aeroplano, di Giacomo Malannino. L'Aerotecnica, Roma, July 1938, v. 18, no. 7, p. 813-28. diags., tables.
- Airplane landing gear. Review of classic solutions with some remarks on construction, by E. Jones and F. G. R. Cook. Aircraft engineering, London, June 1938, v. 10, p. 165-72. illus.
- Landing gear forks welded at Glenn L. Martin, by Rupert Le Grand. American machinist, New York, May 4, 1938, v. 82, p. 368-70. illus.
- A Study of design conditions for tricycle landing gears, by C. J. Wenzinger and R. T. Jones. Journal of the Aeronautical sciences, New York, May 1938, v. 5, no. 7, p. 260-65. illus.
- Retractable landing gear reflects design ingenuity, by F. Kelly. Machine design, Cleveland, Ohio, Apr. 1938, v. 10, no. 4, p. 20-23. illus.

DESIGN AND CONSTRUCTION

Tricycle undercarriage; the advantages and disadvantages of features which have recently been revived, by G. T. R. Hill. Aircraft engineering, London, Apr. 1938, v. 10, p. 95-98. tables.

Noorduyn "Norseman"- optionally fitted with wheels, skis, or floats and used either for freight or passenger. Aviation, New York, Mar. 1938, v. 37, no. 3, p. 33. tables.

L'Hélice Gaba, à pas réglable en vol et reversible pour l'atterrissage, par A. Gaba. L'Aéronautique, Paris, Feb. 1938, v. 20, no. 225, p. 22-27. diags.

Un Nuovo strumento per le misure di decollaggio. Rivista aeronautica, Roma, Jan. 1938, v. 15, no. 1, p. 397-404. illus., tables.

A Discussion of certain problems connected with the design of hulls of flying boats and the use of general test data, by Walter S. Diehl. Washington, U. S. Govt. print. off., 1938. 8 p. diags., illus. (N.A.C.A. Report no. 625)

Landing gears, by Willis L. Nye. (In his Practical aeronautical engineering. San Francisco, Aviation press, 1938. p. 131-46. diags., illus.)

Taxying bumps, by J. Corner. Flight, London, Nov. 18, 1937, v. 32, p. 34. illus.

Sollecitazioni dinamiche nel carrello degli aeroplani, di R. Ariano. L'Aerotecnica, Roma, Sep. 1937, v. 17, no. 9, p. 774-75. illus., tables.

Theoretische und experimentelle grundlage für die untersuchung und entwicklung von flugzeugfederbeine, von Franz Michael. Luftfahrtforschung, München, Aug. 20, 1937, v. 14, no. 8, p. 387-416. diags., illus., tables. (Abstract Journal of the R.A.S., London, Jan. 1938, v. 42, p. 325)

Carrello d'atterraggio Butler. Rivista aeronautica, Roma, June 1937, v. 13, no. 6, p. 521-23. diags.

L'Evolution des trains d'atterrissage, par J. Bally. Revue de l'aluminium, Paris, Apr. 1937, v. 14, no. 90, p. 669-81. diags., illus.

FLOATS

Assisting take-off and alighting. Hydroplane launching gear for stepless flying boats, by F. W. King. Flight, London, July 4, 1940, v. 38, no. 1645, p. 7-8. diags.

LANDING GEARS

- Pneumatic seaplane floats. Scientific american, New York, Apr. 1940, v. 162, p. 224. illus.
- Buyer's log book. Aviation, New York, Mar. 1940, v. 39, no. 3, p. 72. illus.
- Aircraft floats. Aircraft engineering, London, Jan. 1940, v. 12, no. 131, p. 31. diagsr.
- A New method of studying the flow of the water along the bottom of a model of a flying boat hull, by K. E. Ward. Washington, 1940. 9 p. diagsr., tables. (N.A.C.A. Technical notes no. 749)
- Seaplanes can use land airports, by A. Klemin. Scientific american, New York, Oct. 1939, v. 161, no. 4, p. 223. illus.
- Production float design, by James G. Shonts. Aero digest, New York, Sep. 1939, v. 35, no. 3, p. 42-43. diagsr., illus. (Abstract Journal of the Aeronautical sciences, New York, Nov. 1939, v. 7, no. 1, p. 34)
- Neues verfahren der übertragung des modellwiderstandes eines gleitfahrzeuges auf die hauptausführung, von W. Sottorf. Luftfahrtforschung, München, Aug. 20, 1939, v. 16, no. 8, p. 412-18. diagsr., illus. (Abstract Aircraft engineering, London, Feb. 1940, v. 12, no. 132, p. 45 and Journal of the Aeronautical sciences, New York, Jan. 1940, v. 7, no. 3, p. 128)
- Versuche an flugzeugschwimmern, von F. Gutsche. Zeitschrift des V.D.I., Berlin, July 22, 1939, v. 83, no. 29, p. 865-66. diagsr., illus.
- Dornier transatlantic flying boat. Engineering, London, May 26, 1939, v. 147, no. 3828, p. 618-19. illus.
- Ausbildung von schwimmerböden, von S. D. Berman. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Apr. 1939, v. 6, no. 4, p. 142. illus.
- Der luftwiderstand von schwimmern und flugbooten, von B. Göthart und W. Ribnitz. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Mar. 1939, v. 6, no. 3, p. 101-07. illus.
- Über den landungsstoss von flugzeugschwimmern, von C. Schmieden. Ingenieur archiv, Berlin, Feb. 1939, v. 10, no. 1, p. 1-13. diagsr., illus.
- Der einfluss von schwimmernform und belastung auf den wasserwiderstand von schwimmwerken, von H. Thiel. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Jan. 1939, v. 6, no. 1, p. 30-35. diagsr., illus.

FLOATS

- Hydrodynamic and aerodynamic tests of a family of models of seaplane floats with varying angles of dead rise. N.A.C.A. models 57-A, 57-B, 57-C, by John B. Parkinson, Roland E. Olson and Rufus O. House. Washington, 1939. 11 p. diags., illus., tables. (N.A.C.A. Technical notes no. 716)
- Proposed method for the design of bottom plating for flying boat hulls and seaplane floats, by Sidney D. Berman. Journal of the Aeronautical sciences, New York, Dec. 1938, v. 6, no. 2, p. 64-67. diags., tables.
- Model 50-C Aeronca gets license on Edo floats. Canadian aviation, Toronto, Nov. 1938, v. 11, no. 11, p. 12.
- More about pneumatic floats. Aeroplane, London, Oct. 5, 1938, v. 55, no. 1428, p. 415-16. illus.
- Floats made of balloon fabric. Aero digest, New York, Aug. 1938, v. 33, no. 2, p. 104. illus. (Also Western flying, Los Angeles, Cal., Aug. 1938, v. 18, no. 2, p. 32)
- Pneumatische schwimmer. Interavia, Geneva, July 16, 1938, no. 561, p. 6. illus.
- Boeing Clipper beaching gear. Aero digest, New York, June 1938, v. 32, no. 6, p. 87. illus.
- Aerodynamic drag of five models of side floats, N.A.C.A. models 51-E, 51-F, 51-G, 51-H and 51-J, by R. O. House. Washington, 1938. 6 p. diags. (N.A.C.A. Technical notes no. 680)
- The Design of floats, by W. Sottorf. Washington, 1938. 19 p. diags., illus. (N.A.C.A. Technical memorandums no. 860) (From Luftfahrtforschung, München, Apr. 20, 1937, v. 14, no. 4-5, p. 157-67)
- Festigkeitsversuche an schwimmwerken, von K. Matthaes. (In Jahrbuch der deutschen luftfahrtforschung, München, 1938, part 1, p. 342-47. illus.)
- How to build flying boat hulls and seaplane floats, by J. Streeter. London; New York, Isaac Pitman and sons, 1938. 90 p. diagr., illus., tables.
- Hull and float design, by Earl Flavius Loudy. (In his Metal airplane structure hull and float design. New York, Norman W. Henley company, 1938. p. 415-35. diags., illus., tables)
- Hydrodynamic and aerodynamic tests of four models of outboard floats, N.A.C.A. models 51-A, 51-B, 51-C and 51-D, by J. R. Dawson and E. P. Hartman. Washington, 1938. 21 p. diags., tables. (N.A.C.A. Technical notes no. 678)

LANDING GEARS

- Hydrodynamic and aerodynamic tests of models of floats for single float seaplanes, N.A.C.A. models 41-D, 41-E, 61-A, 73 and 73-A, by J. B. Parkinson and R. O. House. Washington, 1938. 14 p. illus. (N.A.C.A. Technical notes no. 656)
- On determination of the take-off characteristics of a seaplane, by A. Perelmuter. Washington, 1938. 25 p. illus., tables. (N.A.C.A. Technical memorandums no. 863) (From C.A.H.I., Moscow, 1938, p. 1-18)
- Tank tests of a model of one hull of the Savoia S-55-X flying boat, model N.A.C.A. 46, by J. M. Allison. Washington, 1938. 11 p. illus. (N.A.C.A. Technical notes no. 635)
- Tank tests of model 36 flying boat hull, by J. M. Allison. Washington, 1938. 9 p. diagrs., tables. (N.A.C.A. Technical notes no. 638)
- Über den einfluss von federung und kielung auf den landesstoss, von J. Sydow. (In Jahrbuch der deutschen luftfahrtforschung, München, 1938. part 1, p. 329-38)
- Helping seaplane off, by D. J. Brimm, Jr. Aviation, New York, Aug. 1937, v. 36, no. 8, p. 32-33.
- Entwerfen von flugzeugschwimmern, von W. Sottorf. Luftfahrtforschung, München, Apr. 20, 1937, v. 14, no. 4-5, p. 157-67. illus., tables.
- Analyse experimenteller untersuchungen über den gleitvorgang an der wasseroberfläche, von W. Sottorf. Berlin, Technische hochschule, 1937. 22 p. diagrs., illus., tables.
- Tank tests of two models of flying boat hulls to determine the effect of ventilating the step, by J. R. Dawson. Washington, 1937. 8 p. diagrs. (N.A.C.A. Technical notes no. 594)

RETRACTABLE

- Finding an axis of rotation for a retractable landing gear, by Herman E. Spaeth. Aero digest, New York, Aug. 1940, v. 37, no. 2, p. 68, 71. diagrs.
- The Retraction of undercarriages, by R. H. Bound. Aeronautics, London, Aug. 1940, v. 3, no. 1, p. 86-88. diagrs., illus.
- Tail carriages. Aeronautics, London, Aug. 1940, v. 3, no. 1, p. 67, 87. diagrs., illus.
- Undercarriages. Aeronautics, London, Aug. 1940, v. 3, no. 1, p. 66-67. diagrs., illus., tables.

RETRACTABLE

- Republic EP-1 pursuit. Aviation, New York, June 1940, v. 39, no. 6, p. 52-53. diags., illus.
- Curtiss Wright's new basic combat fighters. Aviation, New York, May 1940, v. 39, no. 5, p. 52-53, 110. diags., illus., table.
- Into the sub-stratosphere, by R. J. Minshall. Aviation, New York, May 1940, v. 39, no. 5, p. 46-49, 116, 119, 120. diags., illus.
- Landing gear operation. Aeroplane, London, Apr. 19, 1940, v. 58, no. 1508, p. 565. diags.
- Undercarriage safety. Aeroplane, London, Apr. 19, 1940, v. 58, no. 1508, p. 565. diags.
- Our fastest fighter. Flight, London, Apr. 18, 1940, v. 37, no. 1634, p. 352. illus.
- Reducing tire wear. Aeroplane, London, Apr. 5, 1940, v. 58, no. 1506, p. 474. diags.
- Retractable undercarriages. Aeroplane, London, Apr. 5, 1940, v. 58, no. 1506, p. 474. diags. (Also Aircraft engineering, London, Aug. 1939, v. 11, no. 126, p. 335)
- Using potential energy. Aeroplane, London, Apr. 5, 1940, v. 58, no. 1506, p. 474. diags.
- Conjoint controls for aircraft retractable undercarriages and aerodynamic brakes. Aircraft engineering, London, Apr. 1940, v. 12, no. 134, p. 129. diags.
- Review of the chief landing gear types. Flight, London, Feb. 8, 1940, v. 37, no. 1624, p. 129-32. illus.
- General solution of the "Skewed axis" landing gear, by O. F. Oldendorph. Aero digest, New York, Feb. 1940, v. 36, no. 2, p. 101-02, 105. diags.
- Locking retractable undercarriages for aircraft. Engineer, London, Dec. 29, 1939, v. 168, no. 4381, p. 651. diags.
- Aircraft hydraulic equipment. Aeroplane, London, Dec. 8, 1939, v. 55, p. 724-25. illus.
- Einziehbares fahrgestell für flugzeuge. Flugsport, Berlin, Oct. 11, 1939, v. 31, no. 16, p. 61. illus.
- The Phillips and Powis Miles Master. Aeroplane, London, July 26, 1939, v. 57, no. 1470, p. 128-32, 137. illus.

LANDING GEARS

- Canadian car and foundry's single place fighter. Aero digest, New York, June 1939, v. 34, no. 6, p. 89-90. illus.
- Three interesting projects. Aeroplane, London, May 31, 1939, v. 56, no. 1462, p. 712-14. illus.
- The Bristol Beauport. Flight, London, May 25, 1939, v. 35, no. 1587, p. 530. illus.
- A Composite design for a high speed mail carrier. Aeroplane, London, May 10, 1939, v. 56, no. 1459, p. 597-99, 608. illus., table.
- Fast work. Aeroplane, London, Apr. 5, 1939, v. 56, no. 1454, p. 429. illus.
- Tucking in the tail wheel. Flight, London, Mar. 2, 1939, v. 35, no. 1575, p. 231. illus. (Abstract Journal of the Aeronautical sciences, New York, May 1939, v. 6, no. 7, p. 305)
- Le Genou électrique. Les Ailes, Paris, Feb. 16, 1939, v. 19, no. 922, p. 8. illus.
- The De Havilland Flamingo undercarriage. Aeroplane, London, Feb. 15, 1939, v. 56, no. 1447, p. 214-18. diags., illus.
- Retractable undercarriages for aircraft. Aircraft engineering, London, Jan. 1939, v. 11, no. 119, p. 35.
- Unorthodox transport. Flight, London, Dec. 22, 1938, v. 34, no. 1565, p. 572-75. illus.
- Trains d'atterrissage. La Technique moderne, Paris, Nov. 15, 1938, v. 30, no. 22, p. 763-65. diags., illus.
- Materials of aircraft construction; the landing gear, by H. J. Gough. Journal of the R.A.S., London, Nov. 1938, v. 42, no. 335, p. 1014-18. illus.
- Retractable alighting gear for aircraft. Aircraft engineering, London, Nov. 1938, v. 10, no. 117, p. 367. diags.
- Retractable wing built. Western flying, Los Angeles, Cal., July 1938, v. 18, no. 7, p. 38. illus.
- Hydraulic controls. Aircraft engineering, London, June 1938, v. 10, no. 112, p. 189-91. diags., illus. (Abstract Journal of the Aeronautical sciences, New York, Sep. 1938, v. 5, no. 11, p. 457)
- Retractable landing gear, by René Lucien Levy. Aircraft engineering, London, June 1938, v. 10, no. 112, p. 196. diags.

RETRACTABLE

- Landing gear forks welded at Glenn L. Martin, by R. Le Grand. American machinist, New York, May 4, 1938, v. 82, no. 9, p. 368-70. diags., illus.
- Fleetwing's valve for gears, flaps. Aero digest, New York, May 1938, v. 32, no. 5, p. 82, 84. illus.
- Sulla rigidezza di alcuni telai piani, di G. Garbrielli. L'Aerotecnica, Roma, May 1938, v. 18, no. 5, p. 531-37. diags., tables.
- Showing the way. Aeroplane, London, Apr. 20, 1938, v. 54, p. 487. illus.
- Retractable landing gear reflects design ingenuity, by F. Kelly. Machine design, Cleveland, Ohio, Apr. 1938, v. 10, no. 4, p. 20-23. illus.
- Retractable undercarriages and tail wheels, by G. W. Williamson. Popular flying, London, Apr. 1938, v. 17, no. 1, p. 22-23, 42. illus.
- Einziehbares fahrgestelle, von H. Schneider. Heinkel-Werkzeitung, Berlin, Feb.-Mar. 1938, 5 p. diags., illus.
- Einziehbares fahrwerk, von R. Lucht. Zeitschrift des V.D.I., Berlin, Jan. 22, 1938, v. 82, no. 4, p. 83. illus.

SHOCK ABSORBERS

- Drop test of shock absorber, by W. C. Trautman. Aviation, New York, Oct. 1940, v. 39, no. 10, p. 55, 94.
- Shock absorber calculation, by R. Hadekel. Flight, London, July 25, 1940, v. 38, p. 29-31.
- A Neat shock absorber. Aeroplane, London, Apr. 5, 1940, v. 58, no. 1506, p. 473. diags.
- Shock absorbing system of airplane landing gear, by P. Callerio. Washington, 1940. 18 p. illus. (N.A.C.A. Technical memorandum no. 938) (From L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 625-40)
- Fixed or retractable? Aeroplane, London, Nov. 16, 1939, v. 57, no. 1486, p. 594.
- Schraubenfederbein mit Öldämpfung. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Nov. 1939, v. 6, no. 11, p. 292. illus.
- KPZ Flugzeugfederbeine. Der Flieger, Frankfurt A/M, Aug. 1939, v. 12, no. 11, p. 388.

LANDING GEARS

- Aeroplane for local aviation. (S XI) Oleo pneumatic shock absorbers for the undercarriage of a high speed aeroplane, by A. Kolmakov. Civil aviation, Moscow, July 1939, v. 9, no. 7, p. 29-31. illus.
- Telescopic shock absorber leg for aircraft undercarriages. Aircraft engineering, London, July 1939, v. 11, no. 125, p. 296. diags.
- Prove dinamiche dei sistemi ammortizzanti per carrelli, di P. Gallinaro. L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 652-57. illus.
- Sul sistema ammortizzatori dei carrelli d'aeroplano, di P. Callerio. L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 625-40. diags., illus., tables.
- Ringfederbeine für flugzeuge, von E. Richter. Zeitschrift des V.D.I., Berlin, May 27, 1939, v. 83, no. 21, p. 652-54. illus. (Abstract Le Génie civil, Paris, Sep. 9, 1939, v. 115, no. 2978, p. 226-27)
- Shock strut. Aircraft engineering, London, Apr. 1939, v. 11, no. 122, p. 182. diags.
- Finish processing of ordnance and tubing bores; operation on airplane landing gear shock absorber strut or oleo cylinders, by K. W. Connor. Iron age, New York, Feb. 23, 1939, v. 143, no. 8, p. 26-28. diags., illus.
- For happier landings. Aviation, New York, Feb. 1939, v. 38, no. 2, p. 28-29. illus.
- Shock absorbers on skis for winter flying. Compressed air magazine, Phillipsburg, N. J., Feb. 1939, v. 44, no. 2, p. 5816.
- On the necessity of hysteresis at shock absorption of landing gears, by B. Schischmarew. Teknika vozdušnovo flota, Moscow, Dec. 1938, no. 12, p. 41-49. illus., tables.
- Something new in undercarriages. Flight, London, Nov. 24, 1938, v. 34, no. 1561, p. 481. illus. (Also Aeroplane, London, Nov. 23, 1938, v. 155, no. 1435, p. 684)
- A "Dry" undercarriage leg. Flight, London, Oct. 20, 1938, v. 34, no. 1556, p. 346. diags.
- Détermination des organes amortisseurs de l'atterrisseur. La Technique aéronautique, Paris, Sep. 1938, v. 29, no. 149, p. 193-212. diags., illus.
- Kraft-weg-diagramme von flugzeugfederbeinen. Flugsport, Berlin, May 11, 1938, v. 30, no. 10, p. 254-55. illus.

SHOCK ABSORBERS

- Les amortisseurs hydrauliques de vibrations pour commandes d'avions. L'Aéronautique, Paris, Apr. 1938, no. 227, p. 41-49. diagsr.
- L'Amortisseur oléo-pneumatique pour trains d'atterrissage, système Fraudi, par H. Irmer. Le Génie civil, Paris, Feb. 26, 1938, v. 112, no. 2898, p. 194-95. diagsr., illus.
- Die Federn, ihre gestaltung und berechnung, von Siegfried Gross und Ernst Lehr. Berlin, V.D.I. Verlag, 1938. 136 p. diagsr., illus., tables.

SKIS

- Light skis equipping a Taylorcraft airplane. Flight, London, Mar. 7, 1940, v. 37, p. 212.
- New ski pedestal described briefly at A.T.A. meeting. Canadian aviation, Toronto, Dec. 1939, v. 12, no. 11, p. 20. illus.
- Aircraft accessories; landing gear equipment. Aero digest, New York, Mar. 1939, v. 34, no. 3, p. 188, 191. illus.
- Flight research in aerodynamics; some of the matters investigated and methods used in flight-testing; take-off and landing, by R. P. Alston. Aircraft engineering, London, Mar. 1939, v. 10, no. 121, p. 84-86. diagsr., illus.
- Shock absorbers on skis for winter flying. Compressed air magazine, Phillipsburg, N. J., Feb. 1939, v. 44, no. 2, p. 5816. illus.
- The Landing of aeroplanes on ice, by K. A. Moskatov. Air fleet news, Moscow, Dec. 1938, v. 21, no. 12, p. 40-46. illus.
- Der ski im licht der festigkeitslehre, von L. Vietoris. Zeitschrift für Mathematischen und naturwissenschaftlichen unterricht, Leipzig, Nov. 1938, v. 70, no. 1, 2, p. 2-9; 56-63.
- New pneumatic ski pedestal. Canadian aviation, Toronto, Sep. 1938, v. 11, no. 9, p. 29. illus.
- Etudes et essais de skis pour avions. Revue de l'armée de l'air, Paris, June 1937, no. 95, p. 647-66. illus.
- Windkanalmessungen an flugzeugschneekufen, von M. Köhler. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Jan. 1937, v. 4, no. 1, p. 6-12. illus., tables.

TAIL WHEEL AND SKIDS

- Fairchild trainer for 1940. Aviation, New York, May 1940, v. 39, no. 5, p. 54, 126. diagsr., illus.

LANDING GEARS

- Tail wheel brake for light aircraft. Aero digest, New York, Sep. 1939, v. 35, no. 3, p. 156. illus.
- The Mechanism of sliding on ice and snow, by F. P. Bowden and T. P. Hughes. Proceedings of the Royal society, London, Aug. 3, 1939, v. 172, no. 949, p. 280-97. illus., tables.
- Improving the tail wheel. Flight, London, July 13, 1939, v. 36, no. 1594, p. 32c. diagrs.
- Tail wheel and the like for aircraft. Aircraft engineering, London, May 1939, v. 11, no. 123, p. 220. diagrs.
- Tucking in the tail wheel. Flight, London, Mar. 2, 1939, v. 35, no. 1575, p. 231. illus.
- New tail wheel tire. Western flying, Los Angeles, Cal., Jan. 1939, v. 19, no. 1, p. 32.
- Steerable automatic tail wheel. Western flying, Los Angeles, Cal., Nov. 1938, v. 18, no. 11, p. 33. illus.
- Steerable tail wheel and tire. Aero digest, New York, Sep. 1938, v. 33, no. 3, p. 85. illus.
- Steerable tail wheel, by Arthur G. Butler. Aircraft engineering, London, Aug. 1938, v. 10, no. 114, p. 262. diagrs.
- Light plane tail wheels. Aviation, New York, July 1938, v. 38, no. 7, p. 47. illus.
- Malleable iron wheel assemblies. Aero digest, New York, July 1938, v. 33, no. 1, p. 85. illus.
- Auxiliary tail wheel. Aviation, New York, June 1938, v. 37, no. 6, p. 49. illus.
- Tail wheel structure, by Robert Ayer. Aircraft engineering, London, June 1938, v. 10, no. 112, p. 196. diagrs.
- Retractable undercarriages and tail wheels, by G. W. Williamson. Popular flying, London, Apr. 1938, v. 17, no. 1, p. 22-23, 42. illus.
- Tail wheels for light aircraft. Aero digest, New York, Apr. 1938, v. 32, no. 4, p. 64. illus.

TESTING

- Drop test of shock absorber, by W. C. Trautman. Aviation, New York, Oct. 1940, v. 39, no. 10, p. 55, 94.

TESTING

- Cathode ray used measuring undercarriage stress. Canadian aviation, Toronto, Mar. 1940, v. 13, no. 3, p. 30-35. illus.
- Cathode ray undercarriage testing. Aircraft engineering, London, Jan. 1940, v. 12, no. 131, p. 17. diagrs., illus.
- Testing gear wheel material. Metropolitan-Vickers technical news bulletin, London, Dec. 22, 1939, no. 690, p. 6. (Abstract Journal of the R.A.S., London, Feb. 1940, v. 44, no. 350, p. 212)
- Building-in reliability. Aeroplane, London, Oct. 5, 1939, v. 57, no. 1480, p. 433.
- Machining operations on airplane landing gear parts. Machinery, London, Sep. 28, 1939, v. 54, no. 1407, p. 781-83. diagrs., illus.
- Testing wheels and brakes at the Avery works, by R. J. Fisher. Aircraft production, London, Aug. 1939, v. 1, no. 10, p. 359. illus.
- Prove dinamiche dei sistemi ammortizzanti per carrelli, di P. Gallinaro. L'Aerotecnica, Roma, June 1939, v. 19, no. 6, p. 652-77. diagrs., illus., tables.
- Torturing the landing gear. Scientific american, New York, Feb. 1939, v. 160, no. 2, p. 95-96. illus.
- Avantages et inconvénients de différents types de trains d'atterrissage, par P. Mercier. Association technique maritime et aéronautique, Paris, 1939, no. 43, p. 417-30. illus., tables.
- Lavoro assorbito dagli elementi elastici di un carrello in condizioni diverse d'atterraggio, di E. Lorenzelli. (In Il V Convegno interprovinciale d'aerotecnica, Napoli, May 19-22, 1938, Roma, 1939. Istituto poligrafico dello stato, p. 466. diagrs., illus.)
- Calcolo per il dimensionamento pratico dei carrelli di aeroplano, di G. Malannino. L'Aerotecnica, Roma, July 1938, v. 18, no. 7, p. 813. illus.
- Theoretische und experimentelle grundlage für die untersuchung und entwicklung von flugzeugfederbeinen, von Franz Michael. Luftfahrtforschung, München, Aug. 20, 1937, v. 14, no. 8, p. 387-416. diagrs., illus. (Abstract Journal of the R.A.S., London, Jan. 1938, v. 42, p. 325)
- Windkanalmessung an flugzeugschneekufen, von M. Köhler. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Jan. 1937, v. 4, no. 1, p. 6-12. illus., tables.

LANDING GEARS

TRICYCLE

- Tricycle undercarriages in military aircraft. *Flight*, London, Aug. 15, 1940, v. 38, no. 1651, p. a-b.
- Nose-wheel pro and contra, by V. W. Ballersted. *Engineers digest*, London, Aug. 1940, v. 1, no. 3, p. 135.
- Tricycle undercarriages. *Air fleet news*, Moscow, June 6, 1940, v. 23, no. 6, p. 53-55. illus.
- Tricycle undercarriage design on analysis of inertia loading actions for the modern landing gear, by P. B. Walker. *Aircraft engineering*, London, June 1940, v. 12, no. 136, p. 171-73.
- Review of the chief landing gear types. *Flight*, London, Feb. 8, 1940, v. 37, no. 1624, p. 129-32. illus.
- Le Bimoteur de transport Douglas DC-5 à aile haute et train tricycle. *L'Aéronautique*, Paris, Dec. 1939, v. 21, no. 247, p. 466-68. diagrs., illus.
- Dynamic problems of the tricycle alighting gear, by J. Wylie. *Journal of the Aeronautical sciences*, New York, Dec. 1939, v. 7, no. 2, p. 56-57. (Abstract *Journal of the R.A.S.*, London, Feb. 1940, v. 44, no. 350, p. 207)
- The Airplane brake, by Henry H. Kerr and F. C. Frank. *Journal of the Aeronautical sciences*, New York, Aug. 1939, v. 6, no. 10, p. 421-24. diagrs.
- Making flying safer. *Aeroplane*, London, July 12, 1939, v. 57, no. 1468, p. 69-72. illus.
- Carrelli tricicli, di M. Valli. *L'Aerotecnica*, Roma, June 1939, v. 19, no. 6, p. 641-51. diagrs.
- Three interesting projects. *Aeroplane*, London, May 31, 1939, v. 56, no. 1462, p. 712-14. illus.
- Hypothetical modernity. *Flight*, London, May 18, 1939, v. 35, no. 1586, p. 512-13. illus.
- Lockheed announces three new models; two due next fall. *Western flying*, Los Angeles, Cal., May 1939, v. 19, no. 5, p. 26.
- The Arpin monoplane. *Aeroplane*, London, Apr. 12, 1939, v. 56, no. 1455, p. 469.
- Developing the Erco airplane; tricycle landing gear, by F. E. Weick. *Aviation*, New York, Apr. 1939, v. 38, no. 4, p. 32-33, 36, 38, 76. illus.

TRICYCLE

- Notules techniques. Les Ailes, Paris, Jan. 12, 1939, v. 19, no. 917, p. 7.
- Improved streamlined wheels. Scientific american, New York, Jan. 1939, v. 160, no. 1, p. 32. illus.
- Undercarriages. Flight, London, Dec. 15, 1938, v. 34, no. 1564, p. 563-65. illus.
- Tricycle amphibian aeroplane. Aircraft engineering, London, Dec. 1938, v. 10, no. 118, p. 379-80. illus.
- Undercarriages. An outline of modern tendencies; the tricycle; persistence of fixed gear. Flight, London, Dec. 1938, v. 34, no. 1564, p. 563-65. illus.
- Running the lee-way down. Aeroplane, London, Oct. 5, 1938, v. 55, p. 422. illus.
- Le Train d'atterrissage tricycle de l'avion Douglas DC-4, par R. C. Wood. L'Air, Paris, Oct. 1, 1938, v. 20, no. 454, p. 589, 596.
- Nose wheel design loads for tricycle gear, by Bruce Smith. Aero digest, New York, Oct. 1938, v. 33, no. 4, p. 68. diagrs., illus.
- A Planchette tricycle. Aeroplane, London, Aug. 31, 1938, v. 55, no. 1423, p. 264. illus.
- The Tricycle chassis; its effect on man power and material in time of war. General aircraft news, London, Aug. 1938, v. 8, no. 2, p. 14-15.
- Aeroplane undercarriages, by E. Jones and F. G. R. Cook. Aircraft engineering, London, July 1938, v. 10, p. 213-17. illus., tables.
- Un Avion italien à train tricycle. Les Ailes, Paris, June 30, 1938, v. 18, no. 889, p. 12. illus.
- Airplanes for popular flying; tricycle landing gear, by A. Klemin. Mechanical engineering, New York, June 1938, v. 60, p. 465-67. diagrs., illus.
- A Tricycle for the R.A.F. Aeroplane, London, May 25, 1938, v. 54, p. 651.
- A Study of design conditions for tricycle landing gears, by Carl J. Wenzinger and Robert T. Jones. Journal of the Aeronautical sciences, New York, May 1938, v. 5, no. 7, p. 260-65. diagrs., tables.

LANDING GEARS

- The Three-wheeled undercarriage. Aircraft engineering, London, Apr. 1938, v. 10, no. 110, p. 93-94. diagrs., illus.
- Timm 840; tricycle landing gear. Aviation, New York, Apr. 1938, v. 37, no. 4, p. 40-41, 72. illus. (Also Western flying, Los Angeles, Cal., Mar. 1938, v. 18, no. 3, p. 21)
- Tricycle undercarriage, by G. T. R. Hill. Aircraft engineering, London, Apr. 1938, v. 10, no. 110, p. 95-98. illus., tables.
- L'Avenir est-il aux atterrisseurs tricycles? par J. Delsuc. L'Air, Paris, Mar. 1, 1938, v. 20, no. 440, p. 157, 163. illus.
- Taking-over the tricycle. Flight, London, Feb. 3, 1938, v. 35, p. 103-04. illus.
- Les Avions à trois roues d'atterrissage ont-ils des chances d'avenir particulières? L'Écho des ailes, Bruxelles, Jan. 27, 1938, v. 8, no. 4, p. 45. illus.
- I Tricicli aerei. L'Aerotecnica, Roma, Jan. 1938, v. 14, no. 1, p. 338-44. diagrs., illus.
- More about this tricycle business, by F. D. Bradbrooke. Aeroplane, London, Nov. 17, 1937, v. 53, p. 597-98. illus.
- These tricycles. Flight, London, Nov. 11, 1937, v. 32, p. 462-65. illus.
- Gwinn introduces aircraft. Western flying, Los Angeles, Cal., Nov. 1937, v. 17, no. 11, p. 31. illus., tables.
- Rational unorthodoxy. Flight, London, Sep. 18, 1937, v. 32, p. 482-84. illus., tables.
- Un Nouveau Douglas aura trois roues et trois directions. Les Ailes, Paris, May 20, 1937, v. 17, no. 831, p. 7.

WHEELS AND TIRES

- Wheels and tail wheels. Aeronautics, London, Aug. 1940, v. 3, no. 1, p. 68. illus.
- Reducing tire wear. Aeroplane, London, Apr. 5, 1940, v. 58, no. 1506, p. 474. diagrs.
- Wheel. Aircraft engineering, London, Mar. 1940, v. 12, no. 133, p. 93. diagrs.
- Full-scale investigation of effect of several factors on shoring of castering wheels, by W. G. Howard, Jr. Washington, 1940. 12 p. diagrs. (N.A.C.A. Technical notes no. 760)

WHEELS AND TIRES

- Stability of castoring wheels for aircraft landing gears, by A. Kantrowitz. Washington, U. S. Govt. print. off., 1940. 16 p. tables. (N.A.C.A. Report no. 686)
- Apron service jacks, wheels, brakes. Aviation, New York, July 1939, v. 38, no. 7, p. 36-37, 48. illus.
- Aircraft accessories; landing gear equipment. Aero digest, New York, Mar. 1939, v. 34, no. 3, p. 188, 191. illus.
- Wheel and brake manufacture, by R. J. Fisher. Aircraft production, London, Mar. 1939, v. 1, no. 5, p. 184-87. illus.
- New tail wheel tire. Western flying, Los Angeles, Cal., Jan. 1939, v. 19, no. 1, p. 32.
- New type landing gear wheels. Aero digest, New York, Jan. 1939, v. 34, no. 1, p. 147. illus.
- Drehwiderstand der reifen, von H. Kluge und A. Haas. Berlin, V.D.I. Verlag, 1939. 12 p. illus.
- Something new in undercarriages. Flight, London, Nov. 24, 1938, v. 34, no. 1561, p. 481. illus. (Also Aeroplane, London, Nov. 23, 1938, v. 55, no. 1435, p. 684)
- Materials of aircraft construction; the landing gear, by H. J. Gough. Journal of the R.A.S., London, Nov. 1938, v. 42, no. 335, p. 1014-18. illus.
- Steerable tail wheel and tire. Aero digest, New York, Sep. 1938, v. 33, no. 3, p. 85. illus.
- Airplane wheels from lightest of metals, by C. E. Diebold. Machinery, London, July 1938, v. 44, p. 748-50. illus.
- All is not wheel. Flight, London, June 16, 1938, v. 33, no. 1538, p. 604. illus.
- Technique de l'aviation. Roues d'atterrissage à haute pression ou à basse pression. L'Écho des ailes, Bruxelles, Apr. 28, 1938, v. 8, no. 17, p. 198.
- Staatwiel of neuswiel? Vliegwereld, Haarlem, Aug. 5, 1937, v. 3, no. 27, p. 460-61. illus.
- Wielen en veerende stijlen voor vliegtuigen, door J. Hollants. Polytechnisch weekblad, Amsterdam, July 27, 1937, v. 31, no. 7, p. 302-03. illus.

Section III

REFUELING IN FLIGHT

- The History and progress of refueling in flight. Journal of the R.A.S., London, July 1940, v. 44, no. 355, p. 557-603. diags., illus.
- The Progress of refueling in flight, by Alan J. Cobham and M. Langley. Aeroplane, London, Apr. 19, 26, 1940, v. 58, no. 1508, 1509, p. 558-62; 588-89. illus. (Also Flight, London, Apr. 25, 1940, v. 37, p. 383-85)
- Flight refueling. Aeroplane, London, Apr. 19, 1940, v. 58, no. 1508, p. 544. illus.
- Refueling in flight, by M. Langley. Engineer, London, Apr. 12, 1940, v. 169, p. 358-59. illus.
- Development of long range aircraft. Nature, London, Apr. 6, 1940, v. 145, p. 539-41. illus.
- The Advantages of refueling in the air. Aeroplane, London, Mar. 1, 1940, v. 58, no. 1501, p. 277.
- Landing speed and ceiling in relation to refueling in flight, by Marcus Langley. Yapton, England, Flight refueling, 1940. 16 p. diags., illus., tables.
- Flight refueling over the Atlantic, by Alan J. Cobham. Aeroplane, London, Dec. 29, 1939, v. 57, no. 1492, p. 826-27. illus., table.
- Avions réservoirs Harrow pour faire en vol le plein d'essence des avions. Le Génie civil, Paris, Dec. 9, 1939, v. 115, p. 421-23. tables.
- The Atlantic service refueled, by Alan J. Cobham. Flight, London, Nov. 2, 1939, v. 36, p. 358-59. illus.
- Transatlantic air services; refueling in flight, by R. H. Mayo. Journal of the R.A.S., London, Nov. 1939, v. 43, p. 902-05. diags., illus. (Abstract Engineering, London, Nov. 24, 1939, v. 148, p. 594)
- Le Plein d'essence en vol pour les hydravions transocéaniques. L'Illustration, Paris, Aug. 12, 1939, v. 203, p. 515. illus.
- Refueling in flight. Engineer, London, Aug. 4, 1939, v. 168, no. 4360, p. 122-26. diags., illus.
- The Flying petrol station. Aeroplane, London, Aug. 2, 1939, v. 57, no. 1471, p. 167. illus.

REFUELING IN FLIGHT

- A Refueling devise, by W. J. Glennell. *Aeroplane*, London, June 28, 1939, v. 51, no. 1466, p. 840.
- Fueling in the air, by C. M. Poolson. *Flight*, London, May 25, 1939, v. 35, no. 1587, p. 532a-532d. illus.
- Ravitaillement en vol, par J. Craight. *Les Ailes*, Paris, May 1939, v. 19, no. 950, p. 8. illus.
- A Midair petrol merchant. *Aeroplane*, London, Apr. 26, 1939, v. 51, no. 1457, p. 530.
- The Large flying boat and air refueling. *Flight*, London, Apr. 6, 1939, v. 36, p. 342-44. illus. (Abstract Groupement pour recherches aéronautiques, Paris, Apr. 30, 1939, v. 6, p. 1131)
- Refueling seaplanes and flying boats by launch. *Intava world*, London, Apr. 1939, v. 1, no. 5, p. 30-31.
- Rapid refueling. *Flight*, London, Mar. 30, 1939, v. 35, no. 1579, p. 317. illus.
- Static electricity and fueling in the air. *Aeroplane*, London, Mar. 15, 1939, v. 56, p. 356.
- Fueling in the air, by C. G. Grey. *Aeroplane*, London, Mar. 1, 1939, v. 56, no. 1449, p. 270-73. illus.
- Refueling in the air. *Intava world*, London, 1939, v. 1, no. 4, p. 28-29. diags., illus. (Abstract Groupement pour recherches aéronautiques, Paris, July 20, 1939, v. 14, p. 2627)
- An Aerial fish gets hooked. *Popular aviation*, Chicago, Dec. 1938, v. 23, no. 6, p. 48-49. illus.
- Side by side cub. *Aviation*, New York, Oct. 1938, v. 37, no. 10, p. 41. diags.
- Refueling in flight, by Georg Galagar. *Aeroplane*, London, July 6, 1938, v. 55, no. 1415, p. 39.
- Refueling in the air and the Mayo composite. *Aeroplane*, London, Apr. 27, 1938, v. 54, no. 1405, p. 518. diags.
- "Cow and Calf". *Aeroplane*, London, Feb. 23, 1938, v. 54, no. 1396, p. 228. diags., illus.
- Refueling in the air, by R. L. R. Atcherley. *Aeroplane*, London, Feb. 23, 1938, v. 54, no. 1396, p. 228.
- Tanken in der luft. *Deutsche flughäfen*, Berlin, Feb. 1938, v. 6, no. 2, p. 30. illus.

Section IV

TAILLESS AIRPLANES

- Tailless fighting plane. Popular science, New York, May 1940, v. 136, p. 73. diags., illus.
- Wing without a tail is twin-engined plane. Popular mechanics, Chicago, May 1940, v. 73, p. 645. illus.
- Handley-Page-Lachmann tailless airplane. Mechanical engineering, New York, May 1939, v. 61, p. 390-91. diags., illus.
- A New tailless design. Aeroplane, London, Mar. 15, 1939, v. 56, p. 341-42. diags., illus.
- Comparaisons entre le Horten III et les Av. 2 et 3 de Charles Fauvel, par Pierre Desbordes. Les Ailes, Paris, Nov. 3, 1938, v. 18, no. 907, p. 12. illus.
- Unique tailless design, "Bumblebee", by A. Klemin. Scientific american, New York, Sep. 1938, v. 159, p. 142-43. illus.
- Why not tailless models? by H. J. Meier. Model airplane news, Mt. Morris, Illinois, Sep. 1938, v. 19, no. 3, p. 10-11, 59-62. diags., illus.
- Neue wege der flugtechnik, von Heinrich Focke. Deutsches museum abhandlungen und berichte, Berlin, June 1938, v. 10, no. 6, p. 145-57. diags., illus., tables.
- Batwing ready for tests. Western flying, Los Angeles, Cal., Mar. 1938, v. 18, no. 3, p. 28.
- Nurflügelmodelle. Grundlagen zum entwurf und bau, von H. Ruggaber. Leipzig, Schafer und cie, 1938. 48 p. illus.
- Bericht über die messergebnisse des schwanzlosen versuchsflugzeuges, D.F.S. 193, von A. Lippisch. (In Jahrbuch der deutschen luftfahrtforschung, München, 1937, part 1, p. 301-08. diags.)

Section V

AIRPLANE CATAPULTS

- Assisting take-off and alighting; hydroplane launching gear for stepless flying boats, by F. W. King. *Flight*, London, July 4, 1940, v. 38, no. 1645, p. 7-8. diags.
- Aircraft carrier operations, by A. E. Montgomery. *Aero digest*, New York, Feb. 1940, v. 36, p. 52, 54, 57.
- Shipboard catapults, by Charles A. Nicholson. *Aero digest*, New York, Feb. 1940, v. 36, no. 2, p. 58, 61-62. illus.
- L'Elletrocatapulta per lancio di aerei, di Leonardo Lo Curto. *L'Ingegnere*, Milano, Jan. 1940, v. 14, no. 1, p. 79-80. diags. (Abstract Engineer's digest, London, June 1940, v. 1, no. 1, p. 18)
- Transatlantic air services; the catapult, by R. H. Mayo. *Engineering*, London, Nov. 17, 1939, v. 148, p. 566. (Also *Journal of the R.A.S.*, London, Nov. 1939, v. 43, p. 897-98. diags., illus. and *Aeroplane*, London, Sep. 7, 1939, v. 57, p. 306-07)
- Amerikanskt katapultflygplan. *Flygning*, Stockholm, Nov. 1939, v. 17, no. 48, p. 12. illus.
- Shortening take-off run, by F. R. Shanley and F. P. Cozzone. *Aero digest*, New York, Oct. 1939, v. 35, p. 113, 156. illus.
- Les Catapultes pour le lancement des avions à bord des navires. *Le Génie civil*, Paris, May 20, 1939, v. 114, p. 420-22. diags.
- Cutting out the aerodrome, by F. W. King. *Flight*, London, Apr. 13, 1939, v. 35, p. 382-83. illus.
- Catapulte à réaction, système Rougeron. *La Science aérienne et l'aéronautique*, Paris, Jan.-Feb. 1939, v. 1, no. 1, p. 30-31. diags., illus. (Abstract Groupement pour recherches aéronautiques, Paris, Apr. 10, 1939, v. 4, p. 659)
- L'Hydravion de chasse catapultable Ro-44. *L'Aérophile*, Paris, Feb. 1939, v. 47, no. 2, p. 34-35. illus., tables.
- Forces acting on the catapult car, by H. C. Richardson. *Aviation*, New York, Jan. 1939, v. 38, p. 30-31. illus.
- The Catapult. *Flight*, London, Dec. 29, 1938, v. 35, no. 1566, p. 600a-600b. illus.
- Back to the catapult, by H. C. Richardson. *Aviation*, New York, Dec. 1938, v. 37, no. 12, p. 26-27, 76, 78, 80. illus.

AIRPLANE CATAPULTS

- Catapulting for aircraft. Is the catapult the solution to trans-oceanic flying? by Paul H. Wilkinson. Air trails, New York, Nov. 1938, v. 11, no. 2, p. 28, 74. illus.
- To launch fighters and light bombers in war. Aeroplane, London, Aug. 24, 1938, v. 55, p. 215. illus.
- Entwicklung der flugzeugabstossbahnen bei den Ernst Heinkel flugzeugwerken, von Karl Schwärzler. Luftfahrtforschung, München, June 20, 1938, v. 15, p. 48-53. illus., tables. (Abstract Journal of the R.A.S., London, Mar. 1938, v. 42, no. 327, p. 232)
- L'Envoi sur place des avions, par S. Pivko. La Nature, Paris, June 1, 1938, v. 66, p. 364-65.
- Catapults may solve airport space problem, by R. G. Skerrett. Compressed air magazine, Phillipsburg, N. J., June 1938, v. 43, p. 5621-26. illus.
- Der Toboggan-katapult; ein neuer weg zum starten von ozeanflugbooten. Der Flughafen, Berlin, May 1938, v. 6, no. 5, p. 13. illus.
- The Deutsche Lufthansa... Seaplane catapult motorship "Friesland". Engineering, London, Mar. 25, Apr. 15, 1938, v. 145, p. 321-23, 330; 414-15. illus.
- When a plane is catapulted, by H. J. G. Harper. Air review, London, Apr. 1938, v. 5, no. 4, p. 37-38. diagsr., illus.
- Le Toboggan de catapultage, par Louis Petit. Les Ailes, Paris, Mar. 24, 1938, v. 18, no. 875, p. 8.
- De Katapult van Hrs. Ms. "de Ruyter", von Bach. Vliegwereld, Haarlem, Jan. 1937-1938, v. 3, no. 1, p. 7-9. illus.
- Landkatapulte auf flughäfen. Deutsche flughäfen, Berlin, Jan. 1938, v. 6, no. 1, p. 16-17. illus.
- Das Heinkel katapult K 10, von G. Thurow. (In Jahrbuch der deutschen luftfahrtforschung, München, 1938, part 3, p. 143-44. illus.)
- Schwimmende inseln; flughilfsschiffe; zwillingsflugzeug, von Walter Zürl. München, Curt Pechstein, 1938. 526 p. diagsr., illus., tables.
- Catapult or air tug? Flight, London, Nov. 4, 1937, v. 32, no. 1506, p. 436. illus.
- Assisting the take-off; catapults. Flight, London, July 22, 29, 1937, v. 32, no. 1491, 1492, p. 100a-100d; 124b-124d. illus.

Section VI

AIRPLANE CARRIERS

- The Fleet air arm, by F. A. de V. Robertson. *Flight*, London, Oct. 10, 1940, v. 38, no. 1659, p. 294a, 294b, 294c, 294d, 294f, 294g. diags., illus., tables.
- Our flying navy, by J. B. Hancock. *Popular mechanics*, Chicago, July 1940, v. 74, p. 17-24. illus.
- Thrills of the flying sailors; life on our aircraft carriers, by D. F. Smith. *Popular science*, New York, July 1940, v. 137, p. 46-48. diags., illus.
- Vought-Sikorsky fighter - single place monoplane for aircraft carriers. *Aero digest*, New York, July 1940, v. 37, no. 1, p. 128.
- Le Porte-avion "Graf Zeppelin", par P. H. Monand. *Les Ailes*, Paris, Apr. 4, 1940, v. 20, p. 45. illus.
- Ship-borne aircraft. *Flight*, London, Mar. 14, 1940, v. 37, p. 234-36. illus.
- Presto! An aircraft carrier. *Aviation*, New York, Mar. 1940, v. 39, no. 3, p. 82. illus.
- Navi porta aerei, di N. Raneri. *L'Ingegnere*, Milano, Feb. 25, 1940, v. 14, no. 2, p. 91-94. illus., tables. (Abstract Groupement pour recherches aéronautiques, Paris, Apr. 30, 1940, v. 42, p. 6581)
- Le Nouveau navire porte-avions allemand "Graf Zeppelin". *L'Air*, Paris, Feb. 24, 1940, v. 22, p. 115. (Abstract Groupement pour recherches aéronautiques, Paris, Mar. 20, 1939, v. 38, p. 5826)
- Aircraft carrier operations, by Alfred E. Montgomery. *Aero digest*, New York, Feb. 1940, v. 36, no. 2, p. 52, 54, 57. illus.
- Refueling in flight over the Atlantic, by A. J. Cobham. *Aeroplane*, London, Dec. 29, 1939, v. 57, p. 826-27.
- Une Nouvelle methode de lancer les avions. *La Technique moderne*, Paris, Nov. 15, 1939, v. 31, no. 21-22, p. 18.
- Flugzeugträger "Ark Royal". *Zeitschrift des V.D.I.*, Berlin, Nov. 4, 1939, v. 83, no. 44, p. 1173-74. illus. (Also Deutsche luftwacht, ausgabe Luftwissen, Berlin, Sep. 1939, v. 6, no. 9, p. 253-55)
- H. M. aircraft carrier, "Formidable". *Engineer*, London, Aug. 25, 1939, v. 168, p. 209. illus.

AIRPLANE CARRIERS

- The Admiralty assumes control. *Aeronautics*, London, Aug. 1939, v. 1, no. 1, p. 46-48. diags., illus. (Abstract Groupement pour recherches aéronautiques, Paris, Oct. 30, 1939, v. 24, p. 38-41)
- Wheels over water; landing on the deck of an aircraft carrier in a storm, by R. A. Winston. *Readers digest*, Pleasantville, N. Y., July 1939, v. 35, p.129-31. illus.
- Giant floating hangar carries sixty planes. *Popular mechanics*, Chicago, June 1939, v. 71, p. 878-79. illus.
- Eine neue doppeldeckerform, von W. Pleines. *Zeitschrift des V.D.I.*, Berlin, May 6, 1939, v. 83, no. 18, p. 522. illus.
- La Nave portaerei nella realtà del suo mare, di Virgilio Spigai. *Rivista marittima*, Roma, Apr. 3, 1939, no. 4, p. 39-49. illus., table.
- H.M.S. "Ark Royal", by Stanley V. Goodall. *Engineering*, London, Mar. 31, 1939, v. 147, p. 386-88. illus. (Also Engineer, London, Mar. 31, 1939, v. 167, p. 416-18) (Abstract Nature, London, Apr. 8, 1939, v. 143, p. 592)
- Pilots, man your planes; Hawaiian maneuvers from the "Saratoga", by S. Jurika, Jr. *Saturday evening post*, Philadelphia, Jan. 21, 1939, v. 211, p. 23.
- The "Ark Royal", by Leonard Bridgman. *Aeroplane*, London, Dec. 14, 1938, v. 55, p. 773-75. illus.
- Ark Royal. A visit to the navy's new aircraft carrier, by F. de V. Robertson. *Flight*, London, Dec. 1, 1938, v. 34, p. 497-98. diags., illus.
- New british aircraft carrier. *Shipbuilding and shipping record*, London, Dec. 1, 1938, v. 52, no. 22, p. 676-77. diags., illus.
- Der Stapellauf des ersten deutschen flugzeugträgers. *Deutsche luftwacht*, ausgabe Luftwehr, Berlin, Dec. 1938, v. 5, p. 491-92. illus.
- New aircraft carrier H.M.S. "Ark Royal". *Society of British aircraft constructors*, news letter, London, Nov. 29, 1938, no. A.1078, p. 1-5. diags., tables.
- Carrier at exercise, by Norman Macmillan. *Flight*, London, Nov. 24, 1938, v. 34, p. 474e-474i. illus.
- Airports at sea, by J. B. Hancock. *Popular aviation*, Chicago, Oct. 1938, v. 23, no. 4, p. 14-18, 86. illus.

AIRPLANE CARRIERS

La Navire-escale "Friesenland", pour les hydravions de la ligne postale allemande de l'Amérique du Sud. Le Génie civil, Paris, June 11, 1938, v. 112, no. 2913, p. 502-03. illus.

Deutsche Lufthansa seaplane catapult motorship "Friesenland". Engineering, London, Mar. 25, Apr. 15, 1938, v. 145, no. 3767, 3770, p. 321-22, 330; 414-15. diags., illus. (Also Schiffbau, Berlin, Sep. 1937, v. 38, no. 17, p. 273-85)

The Catapult toboggan, by L. Petit. Les Ailes, Paris, Mar. 24, 1938, v. 18, p. 8.

Flugzeugträger, von W. Hadelers. Zeitschrift des V.D.I., Berlin, Feb. 12, Mar. 19, 1938, v. 82, p. 153-57; 351-59. illus.

H.M.S. "Campania", by H. J. C. Harper. Popular flying, Chicago, Mar. 1938, v. 6, p. 698-700. illus.

An Industry on stilts, by Homes S. Burns. Scientific american, New York, Feb. 1938, v. 158, p. 69-71. illus.

Trend of design in aircraft carriers. Scientific american, New York, Feb. 1938, v. 158, p. 68.

Modern welding technique. Shipbuilding and shipping record, London, Jan. 27, 1938, v. 51, no. 4, p. 114-17. tables.

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